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Effectiveness of Globalization: A Case Study of Fiji

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ABSTRACT

This paper examines the effectiveness of globalization in the case of Fiji. The paper employs simulation methodology and the dynamic multiplier analysis, using a two-sector model, to evaluate the effects of capital flows on economic growth. First, the short run (impact multiplier) and the long run multipliers are calculated for seven endogenous variables with respect to nine exogenous variables. Second, the counterfactual simulation analysis tests how the interactions under alternative assumptions between foreign direct investment (FDI) and aid flows determine the effectiveness of globalization. The results show that aid increases government investment while FDI increases private investment. Also FDI has a larger impact on savings and imports; however exports do not change with either of the exogenous variables. Overall, under the alternative assumptions, as military coups caused political and economic instability economic growth does not differ from 'no policy change' from an increase in FDI or foreign aid flows.

Introduction

The developing economies to expand into international markets through the globalization process are making new regional arrangements leading to opportunities in trade, investment and related economic policy areas. A feature of the contemporary global economy is the increase in interdependence and competitive pressures, which determine the position of countries within it and shape their possibilities for economic development. Fiji has also become part of the globalization process, adjusting its domestic policies to cater for increasing integration into the global economy to

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boost employment, the quality of jobs available, increase female participation in the labor force and the expansion of exports. This paper examines the effectiveness of globalization and economic growth nexus for Fiji.

Fiji's economy can be described as dualistic, comprising of subsistence and monetized sectors, the latter being predominantly engaged in the production of exports. As a small and open island economy, Fiji is largely dependent on agriculture, while tourism and the manufacturing have been major contributors to Gross Domestic Product (GDP). Compared with other South Pacific island nations Fiji has a fairly well developed infrastructure and is endowed with forestry, minerals and fishery resources that provide support for economic development of the country.

Economic growth in Fiji has been slow due to several development constraints. These constraints include political instability, high levels of external and domestic debts, geographical isolation, high transport costs, reliance on a narrow resource base, and dependence on a small number of exports. Fiji introduced a number of reforms particularly since the military coups of 1987. These reforms include liberalization of trade, public sector reform, labor market reform and reform of the taxation system. Trade, capital mobility, foreign direct investment (FDI), and foreign aid flows have become a vital feature of the economy. In a climate where foreign aid is declining there is an increasing pressure to attract private foreign and domestic capital. Fiji, as most developing countries, has adjusted its domestic policies to accommodate for the globalization process. Consequently, one of the objectives of economic policy is the enhancement of capital flows for economic growth and development. Within this framework is the important question of whether countries receiving higher capital flows and/or adjusting their policies to attract capital are benefiting from such flows.

Keeping in mind the world economic outlook and Fiji's domestic political-economic environment, if capital flows increase how then will an increase of a compounding rate of 10 percent of FDI and foreign aid impact on Fiji's economic growth? The paper employs simulation methodology and dynamic multiplier analysis, using a two-sector model, to evaluate the effects of capital flows on growth. Section 2 discusses political stability-growth nexus as a precondition for growth. The models and empirical results are presented in Section 3. First, the short run (impact multiplier) and long run multipliers are calculated for seven endogenous variables with respect to

nine exogenous variables. Second, the counterfactual simulation analysis examines the impact of 'what if' and 'goal seeking' designed experiments to determine the effectiveness of globalization-growth nexus under alternative assumptions between FDI and aid inflows. The final section presents the conclusion and policy implications.

Political Stability-Growth Nexus: Precondition for Growth

This section highlights briefly the political stability-growth nexus. For sustainable economic growth and global integration a nation requires favorable institutions and a stable political environment. Moreover to realize and redistribute those benefits from growth necessitates a sound framework to handle political conflicts. Issues discussed here are included in the empirical analysis.

The changing direction of politics in Fiji has not been helpful for growth and development. Political instability has adversely affected economic performance with immediate impacts evident on income, investment and growth (Gounder, 1999). Experiences of the past decade show that Fiji has been faced with increased negative growth rates, high imports, fluctuations in export earnings, falling commodity prices and handicapped in competition, and affected by natural disasters. The process of consolidating democratic government and embracing a market-oriented growth strategy has been affected by the 19 May 2000 coup. While various economic reforms were introduced in the post-1987 coup period, the economic performance has not improved. The per capita income in fact has gone back to the levels of the pre-coup period.[1] Therefore, despite considerable progress in the 1970s, Fiji has not "taken off", to use Rostow's terminology of the stages theory of growth. The main problems faced by Fiji are poor governance and political instability, inadequate protection of property rights, weak growth impulses in the export sectors, absence of strong backward linkages in the export sectors, particularly in the manufacturing sectors and the rest of the economy, and very low private sector investment (Gounder, 2002). A factor important for the growth process is skilled labor in the country. Fiji has been affected by an outflow of skilled labor after the

[1] On average Fiji achieved an annual GDP growth rate of 1.6 percent for the period 1981-1997 (Asian Development Bank, 1998). Fiji's income per capita in 1997 was US$2340, which experienced a –0.5 percent decline in average growth rate from 1996, and the 1998 per capita average annual growth of income showed a –5.7 percent decline from 1997 (World Bank, 1999, 2000).

coups of 1987, and this has increased following the May 2000 coup.[2]

A number of policy reforms introduced in the post-1987 coup period to spur economic growth have been insufficient in stimulating export-led growth. Moreover private investment and FDI have not increased despite the government's assurance and policies to support private sector development. With low technical know-how, weak public and private investment and an increasing emigration of skilled labor, Fiji faced major lack of growth factors. While it requires market signals emanating from policy reforms and deliberate policies to stimulate investment, political stability is a basic requirement for successful integration into a global economy.[3] Fiji, since the military coups of 1987, has not been able to restore the required stability and the recent May 2000 political crises suggests that achieving democratic principles, law and order and good governance cannot be assured to create wealth.[4]

Studies underlying the determinants of growth have, over the last four decades, explained developing countries' growth differences. The political economy literature views economic growth as an endogenous variable influenced by several factors beyond technical progress and population growth. As such the performance of the economy in terms of efficiency, innovativeness and growth largely depends on economic and political institutions, and polices adopted by

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[2] Majority of the emigrants after the 1987 coups were professional and technical workers (consisting of architects; accountants; teachers; medical workers; transport workers; clerical workers and supervisors; administrative and managerial workers; sales personnel; agriculture, animal husbandry and forestry workers; fishermen as well as service workers) that have a direct effect on those sectors that employ such professional manpower. The horizontal inequality in labor force is seen where the Indo-Fijians make up a larger proportion of the skilled labor force. While Indo-Fijians make up some 90% of the skilled emigrants, ethnic Fijians and other ethnic groups comprised 6.3 and 3.7% of the total emigrants in 1995 (Reserve Bank of Fiji, 1997). The first half 2000 emigration shows a 14% increase over the same period last year (Reserve Bank of Fiji, 2000).

[3] For example, Central American economies that have experienced major civil and political conflicts have changed their political systems to move towards democratically elected governments that enhance growth (Agosin, 2000).

[4] Gounder's (1999) study on the impact of political instability on Fiji's economic growth and the factors of production shows a negative impact on capital and labor inputs due to the coups that decrease economic growth.

that country (Bernholz, 1992).[5] Many countries and regions have been associated with severe problems, such as high unemployment, inflation, inefficiencies, debt, poverty, etc. Overcoming these problems is linked with different political regimes and its economic systems (Dorn and Schwarts, 1987). The old and new growth economics apply theoretical analysis of economic determinants (exogenous / endogenous factors, shocks /processes are evaluated empirically using production functions and other macroeconomic variables) to explain medium and long-term growth performance. To improve the economy and implement policy reforms requires favorable institutions as well as a favorable economic-political environment. [6]

Globalization is regarded as benefiting developing countries in the study, *Global Economic Prospects and the Developing Countries*, by the World Bank (1996). However, it does not include the pace of global integration for small Pacific island economies. While the argument that integration of markets increases the flow of capital in terms of FDI, trade, aid, and technologies that expand production and the export base, Fiji may not have comparable advantages which puts them on the lower path of integration into the world economy. While political instability has an adverse impact on growth, it is useful to evaluate if globalization contributes to growth and how the integration under alternative assumptions between FDI and aid inflows determine the effectiveness of globalization and its impact on economic growth.

Globalization and Economic Growth: Empirical Results

To measure the impact of capital flows and trade on growth, a standard neoclassical growth model has been modified to integrate several aspects of the impact of capital flows on the economy, as

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[5] Recent surveys of Persson and Tabellini (1990), Alesina and Perotti (1995) have discussed extensively the macro-political economy literature and various links between policy choices and growth. Subjective measures on the quality of governance (i.e. corruption, rule of law and property rights, quality of bureaucracy) on economic growth studies are by Mauro (1995), Knack and Keefer (1995), Clague, Keefer, Knack and Olson (1996). Nelson and Singh (1998) point out that lack of democracy and political freedom seriously hurt nations' economic performance. Gounder (2002) discusses the findings of various studies.

[6] While Latin American countries have implemented macroeconomic reforms without any impact on economic growth, Keefer and Knack (1998) point out that macroeconomic stability alone is not sufficient for catching up, establishment of institutions to protect property and contractual rights is at least as important. See Kaplinsky (1999).

explained by the two-gap model. Equations are estimated for the period 1968 to 1997 to evaluate the effect of the 1987 coups, policy changes and its effect on globalization. Time series procedures have been observed, general to specific modeling procedure has been utilized to minimize the possibility of estimating spurious relations, and to retain long-run information (Hendry, 1995). In addition, this methodology captures the simultaneous relationships amongst capital flows and other endogenous variables.[7] Appendix presents data description and sources.

Models consist of six behavior equations and a resource gap identity equation, in a generic fashion, as follows[8]:

Behavior Equations:

$$TI/Y_i = f_1(\dot{Y}_i, S/Y_i, FDI/Y_i, Aid/Y_i, Inf_{i(-1)}) \quad (1)$$

$$GI/Y_i = f_2(\dot{Y}_i, S/Y_i, Aid/Y_i, Inf_{i(-1)}) \quad (2)$$

$$PI/Y_i = f_3(\dot{Y}_i, S/Y_i, FDI/Y_i, Inf_{i(-1)}) \quad (3)$$

$$X/Y_i = f_4(\dot{Y}^*_i, TI/Y_i, TOT, REX_i) \quad (4)$$

$$M/Y_i = f_5(\dot{Y}_i, TI/Y_i, TOT, REX_i) \quad (5)$$

$$\dot{Y}_i = f_6(TI/Y_i, \dot{L}eff_i, Z_i) \quad (6)$$

Identity Equation:

$$\frac{(S_i - I_i)}{Y_i} = \frac{(X_i - M_i)}{Y_i} \quad (7)$$

where TI/Y: total investment to GDP ratio, $\dot{Y}$: growth rate of income, GI/Y: government investment to GDP ratio, PI/Y: private investment to GDP ratio, Aid/Y: foreign aid to GDP ratio, S/Y: savings to GDP ratio, FDI/Y: foreign direct investment to GDP ratio, Inf: inflation rate, $\dot{L}$eff: growth rate of effective labor force, X/Y: exports to GDP ratio, M/Y: imports to GDP ratio, $\dot{Y}^*$: weighted average by trade share of growth in per capita income of the trading partners, REX: real exchange rate, Z - all other factors that may affect growth, i: country Fiji, and S, I, X, M, Y: total savings, investment, exports, imports and GDP, respectively.

Eq. (1) presents the macroeconomic impact of total investment through FDI flows, aid, savings, and inflation. Eq. (2) and Eq. (3) measure the separate effect of these components of investment.[9] Export and import functions, Eq. (4) and Eq. (5) use the fundamental theory of demand and supply. Eq. (6)

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[7]SAS Institute presents a discussion on the use of various methods to estimate growth models, see SAS Institute, (1993).

[8]It also reduces the potential multicollinearity errors that can occur if the univariate growth equation is applied.

[9]Public and private sector investment have differential impact on growth (Khan and Reinhart, 1990, Ram, 1996, Khan and Kumar, 1997).

presents the growth function and the effect of political instability on growth (z vector). Human capital is included by creating an index that comprises secondary, tertiary and vocational educational enrolment to total labor force as a proportion of the population, called effective labor force in this study.[10] Eq. (7) presents the constraints a country faces using the balance of payments equation relating to the two-gap model.[11]

Impact of Globalization: Dynamic Multiplier Results

The results for each behavior functions indicate that all equations perform quite well and the conventional tests (adjusted R^2, and the F statistic values) are quite high.[12] The model diagnostics in Functional form, heteroscedasticity and normality of the residuals suggest no concern. The estimated coefficients indicate that foreign capital flows and other factors affect growth. To understand the impact of these exogenous variables short run impact multiplier and long run dynamic multiplier coefficients have been estimated. The estimated impact and long run multipliers presented in table 1 are computed for seven endogenous variables (i.e. $\dot{Y}$, *IY, GI/Y, PI/Y, XY, MY, SY*) with respect to nine exogenous variables (i.e. *FDI, AID,* $\dot{L}_{eff}$, *DC, CFDI, INF, TOT, REX*, and *GYTRP*). The values of the estimated coefficients in each column represent the multiplier effect of the endogenous variables for every 1 million dollar increase of the exogenous variables.

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[10] Labour that is skilled in production and conditions the level of human capital for globalization activities may have a tendency to grow faster in developing countries. Human capital is probably more important than labour in the growth process (Barro 1991, Benhabib and Spiegel 1994). Also, exports positively affect economic growth through increases in total factor productivity after including human capital and institutional factors (Edwards, 1998). Human capital has been measured as a multidimensional concept that includes indices of education, health, nutrition and life expectancy.

[11] First constraint is the limit set on imports by the ability to increase exports. Second constraint is the limit set on investment by the supply of domestic savings. From this procedure FDI and aid can affect investment, imports and exports explicitly and the balance of payments implicitly which in turn influences growth, it indicates the openness of the nation. If investment is greater than savings, it implies that the country is running a current account deficit on its trade account, which may be financed by net capital inflows on the capital account through, for e.g., foreign aid, private investment or other capital flows. Singh (1998) presents a discussion on growth sources and consequences.

[12] The results not reported here are available from the author on request.

The estimated FDI coefficients show positive short run and long runmultiplier values for the effect on all endogenous variables bar short run GIY. Thus, FDI flows that are channeled through the domestic sectors (public/private investment), trade sector (exports/imports) and domestic savings have positive impacts. The long run impact of FDI in the investment sector increases substantially. This supports the view that domestic investment benefits largely through exposure to foreign capital and technology. The positive XY and MY multiplier values suggest that FDI flows could be due to an effect of globalization and integration. The larger size of the MY multiplier suggests that FDI relies on imports, thus globalization of trade has positive returns for Fiji's trading partners and/or home country. Filling the trade gap is depicted by FDI on exports, thus foreign-owned enterprises generate a

Table 1: Estimated Short Run and Long Run Multipliers

Short run (Impact multiplier)									
DEP VAR	FDIY	AID	CFDI	$\dot{L}_{eff}$	DC	INF	TOT	REX	GYTRP
$\dot{Y}$	0.49	0.05	-0.59	-0.005	-0.21	-0.05	-0.03	-0.003	0.003
IY	0.35	0.06	-0.43	0.02	-1.08	-0.02	0.06	0.005	0.41
GIY	-0.10	0.08	0.13	0.02	-0.93	0.05	0.02	0.001	0.16
PIY	0.46	-0.02	0.56	0.003	-0.14	-0.08	0.04	0.005	0.26
XY	0.15	0.02	-0.18	0.004	-0.19	-0.01	0.16	-0.07	1.19
MY	0.29	0.05	-0.35	0.06	-2.57	0.02	0.05	-0.09	0.47
SY	0.21	0.03	-0.26	-0.03	1.30	-0.02	0.16	0.06	1.13
Long run Multiplier									
$\dot{Y}$	0.42	0.09	-0.16	-0.17	-7.05	-0.02	0.10	0.03	0.70
IY	3.87	0.77	-4.71	-0.005	-1.17	-0.20	0.95	0.31	6.36
GIY	2.46	1.13	-3.00	0.02	-0.46	0.17	1.16	0.38	7.76
PIY	1.41	-0.36	-1.71	-0.02	-0.64	-0.38	-0.20	-0.07	-1.39
XY	1.64	0.33	-1.99	-0.002	-0.07	-0.08	0.54	-0.21	7.87
MY	2.59	0.52	-3.16	0.20	-7.86	0.14	0.54	-0.39	4.26
SY	2.91	0.58	-3.55	-0.21	8.12	-0.15	1.49	0.49	9.97

Note: DEPVAR – dependent variable, $\dot{Y}$, IY, GIY, PIY, XY, MY SY are Growth rate of GDP, Total Investment, Government Investment and Private Investment to GDP ratio, Exports, Imports and Savings to GDP ratio, respectively. FDIY and Aid – Foreign direct investment and Aid to GDP ratio, CFDI - Interactive coup dummy for FDI, $\dot{L}_{eff}$ growth in effective labor force, DC dummy for coup, INF – Inflation, TOT – Terms of Trade, REX – Real effective exchange rate, GYTRP – Growth of the income of the trading partners.

net positive flow of export earnings in Fiji. Also, FDI-savings multiplier value is positive. Thus, the dual role of FDI (to supplement domestic savings and fill foreign exchange gap through export earnings) can be seen in the case of Fiji.

It is noted, however, that FDI share to real GDP declined in the long run. This is due to political instability and uncertainty in the state of the economy. Since political stability, low risk on capital and a higher rate of return are some of the conditions for higher foreign investment, the military coups of 1987 adversely affected FDI contribution to growth. The impact of military coups on foreign capital flows and other endogenous variables is measured by an interactive dummy variable (CFDI). The estimated negative CFDI multiplier values in the long run suggest that the effect of coups adversely affected FDI impact on economic growth, total investment, public and private investment, exports, imports and savings. These impacts are quite large on all endogenous variables, thus coups led to severe deterioration of the factors of production and overall had a substantial adverse effect on growth ($\dot{Y}$).

Aid inflow directly raises economic growth, government investment, exports, imports and increases savings in Fiji. The government supplements its resources from aid flows to finance public investment, which directly raises total investment. However, aid does not go through the private sector in Fiji. As aid is generally tied to imports of the donor country, this effect is explained by the positive coefficients of aid-imports variable both in the short and long run. Aid also flows via the export sector, which shows a larger positive impact in the long run. For example, aid is tied to the export sector through the sugar industry under the Lomé Convention with the European Union and garments industry under the South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA) with Australia and New Zealand. This impact while positive now will be affected as these terms and agreements will be faded out in the near future.

The estimated impact of effective labor force on growth is negative in the short run. The military coups led to loss of jobs, thus unemployment increased immediately. This negative effect of labor force in the investment sector is also felt in the long run due to outflow of skilled labor. The emigration of skilled labor also contributes to lack of savings, this in turn has impact on already low private investment. The military coups (DC) of 1987 had an immediate adverse effect on all sectors of the economy. Growth declined, total investment, public and private investment fell, and export and import sectors also encountered

negative impacts. Savings increased as producers and consumers got cautious of uncertainty. As such people are motivated to defer irreversible decisions, for instance initiation of investment projects. In addition, imports declined as demand declined.[13] Overall it caused variability of economic activities, which also adversely affected the standard of living[14].

Inflation caused negative effect on growth, investment, exports and savings through real effective exchange rate appreciation and decline in real interest rate. The real effective exchange rate (REX) also negatively impeded private investment, exports, and imports. The terms of trade (TOT) multiplier values estimated for each endogenous variable indicate a positive impact in the long run, except for private investment. The estimated multiplier values of growth in income of the major trading partners' (GYTRP) have positive impacts on all endogenous variables, bar private investment. The XY multiplier increased in the long run; this large impact reflects an increase in demand for Fiji's goods as the trading partners' income grows. Fiji's imports also increased with those trading partners, this is a clear influence of globalization via trade. As trade increases with major trading partners', government investment increases. Thus, foreign capital through the public sector supports government activities (i.e. public investment) but private sector investment does not benefit from GYTRP .

Counterfactual Simulation Analysis for Fiji

Based on the above dynamic multiplier impact results FDI and foreign aid have positive impacts on growth in Fiji. In the next step counterfactual simulation analysis investigates the impact of "what if" and "goal seeking" designed experiments to determine the effectiveness of globalization and growth nexus under the alternative assumptions between FDI and aid inflows for all exogenous variables. Simulation models are used to perform policy experiments in order to compare the experiment results with the values of endogenous variables generated by the model under 'no policy change'. This is called the baseline solution estimated for each simulated endogenous variable, i.e. government investment

[13] Fiji has been affected by weak imports of investment goods such as machinery and equipment so most construction projects have been put on hold.

[14]This effect can be explained by the number of households living below the poverty line,which has increased from 10% in the pre-coup period to 25% in the post-coup period (UNDP and Government of Fiji,1997).

(GIYS), private investment (PIYS), total investment (IYS), savings (SYS), exports (XYS), imports (MYS) and economic growth (YGS).

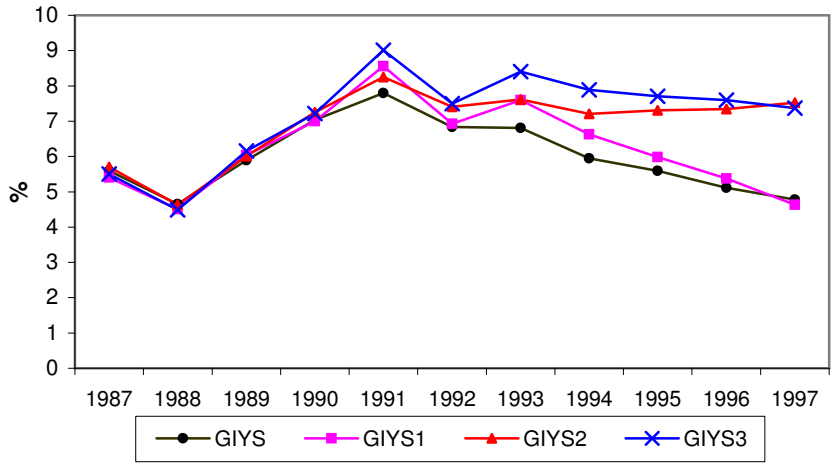
Since one of the objectives of globalization is to increase capital flows to developing countries, it is tested here how an increase by a compounding rate of 10 percent of FDI and aid to Fiji will affect growth. Keeping in mind the competition of foreign capital flows and the political-economic environment of Fiji, geographical location and the size of the economy, and the policies and infrastructure provision of this island nation, a 10 percent compounding rate of FDI and foreign aid flows are taken into consideration. The simulation experiments are performed for the 1987-97 period in order to examine what might have taken place if Fiji Government had pursued alternative economic policies to attract more FDI and foreign aid. Accordingly, experiments for each endogenous variable is evaluated with S1, S2 and S3 in comparison to 'no policy change' (S). The simulation experiments undertaken for three different assumptions are as follows:

- Experiment (S1) aims to examine the whole impact of an increase in foreign direct investment, i.e. FDI is assumed to increase by a compounding rate of 10 percent from 1987. It assumes that all other exogenous variables grow at their historical rates of growth.

- Experiment (S2) aims to examine the whole impact of an increase in foreign aid, i.e. aid inflows are assumed to increase by a compounding rate of 10 percent from 1987. Again it assumes that all other exogenous variables grow at their historical rates of growth.

- Experiment (S3) aims to examine the combined effect of experiment S1 and S2, i.e. adding foreign direct investment and foreign aid.

The simulation results of these policy experiments are shown in Fig. 1 to Fig. 7 below. Fig. 1 illustrates the results for increasing FDI and aid by a compounding rate of 10 percent on government investment (GIY). It is seen that the stimulated values of GIYS1 do not change much from 'no policy change' (GIYS) when FDI is increased. Except for the year 1991 the simulated values of GIYS1 for all other years indicate no major impact. This can be explained by Fiji's political instability. Also implementation of the 1990 Constitution caused a lack of confidence on property rights that discouraged foreign investors. Such effects indicate that even if FDI increased by 10 percent, adverse influence on property rights and uncertainty leads to increased risk of capital loss. Taking into consideration GIYS2, i.e. increasing aid flows, it is seen that aid contribution increased government investment from 1993 to 1997.

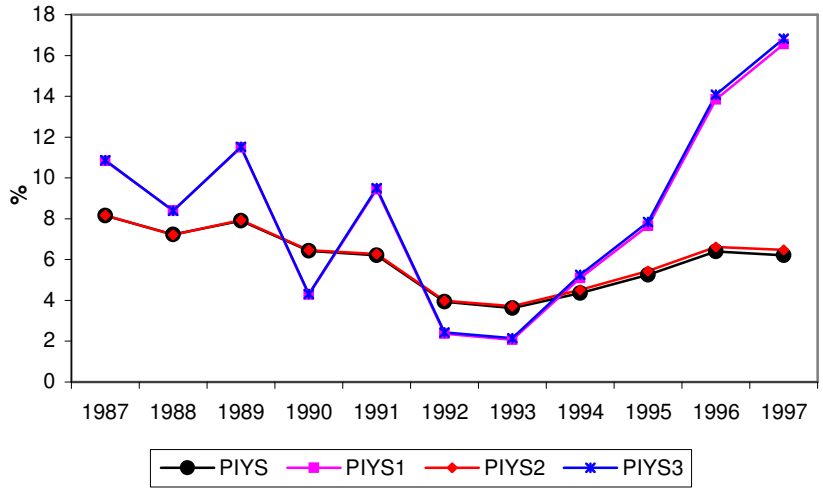


Note: GIY Government investment to GDP ratio, GIYS no policy change, GIYSI change in FDI, GIYS2 change in Aid, GIYS3 change in FDI and Aid.

Fig. 1 Increase in Aid and FDI by a Compounding Rate of 10% on Government Investment

Thus, aid is a major source that supplements government resources to finance its investment. Adding FDI and aid flows, GIYS3 shows that both flows increase public investment, but the contribution of foreign aid is larger than FDI. Under the assumption experiment S2, i.e. increase in aid, indicates a substantially larger impact on government investment as donors resumed aid in 1988 and also Fiji implemented various reforms. Government investment share to GDP increased from 4.5 percent in 1988 to around 8 percent in 1997. Although FDI to some extent may indirectly benefit government investment, the effect of increasing FDI on public investment is not large since FDI generally operates via the private sector.

Investigating the impact of FDI and foreign aid flows by a compounding rate of 10 percent on private sector investment shows that increasing FDI flows has a large impact on private investment (PIYS1) (Fig. 2). Although the simulated values indicate fluctuations since 1987, there is a substantial positive impact on private investment from 1994 to 1997. Increasing foreign aid, on the other hand, does not indicate any impact on the private sector as aid flows directly via the government sector. The results indicate that experiment PIYS2 does not differ from the base line solution of 'no policy change' PIYS. Although aid is supposed to encourage private sector development, which has been a major change in aid

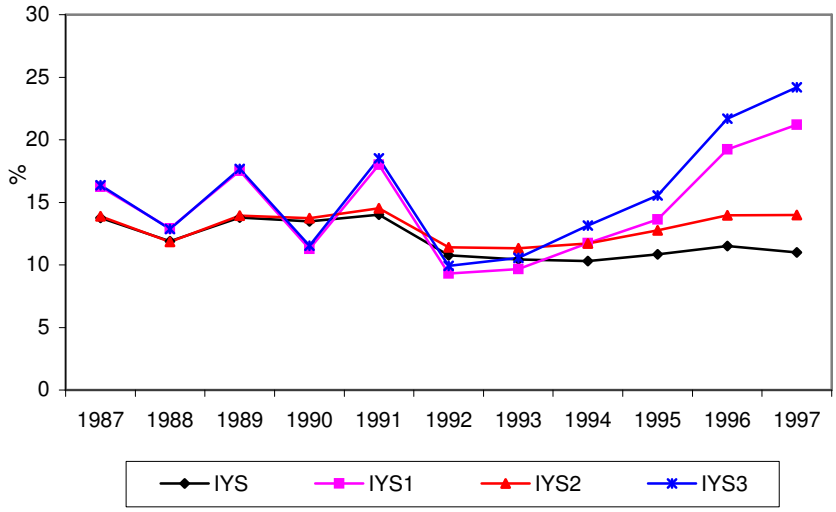


Note: PIY Private investment to GDP ratio, PIYS no policy change, PIYS1 change in FDI, PIYS2 change in Aid, PIYS3 change in FDI and Aid.

Fig. 2 Increase in Aid and FDI by a Compounding Rate of 10% on Private Investment

policy of the multilateral and bilateral donors since the 1990s, these results support the view that aid has not been allocated through the private sector. Adding FDI and aid flows, PIYS3 shows that FDI has a much larger positive impact than foreign aid in the private sector investment. Thus aid via public sector does not supplement private investment.

Economic reforms and political stability have a significant impact on private capital flows. In the later period, that is after 1992, when the Fiji Government formed a Constitutional Review Committee to review the 1990 Constitution it gave signals of political reforms moving towards a democratic and constitutional rule. Political reforms validated investor confidence thereby increasing FDI flows markedly and its impact on private investment was to increase it from less than 3 percent of GDP in 1992 to over 17 percent of GDP in 1997. Such a direction gives a clear indication to the Fiji Government that with the present climate of such low private investment in Fiji, the crucial concern for the policy makers is the provision of a stable political and macroeconomic regime that is most vital for growth. Furthermore, a non discriminatory regulatory environment, supply of skilled labor and the provision of physical infrastructure are necessary for attracting FDI. Since domestic investment relies on foreign

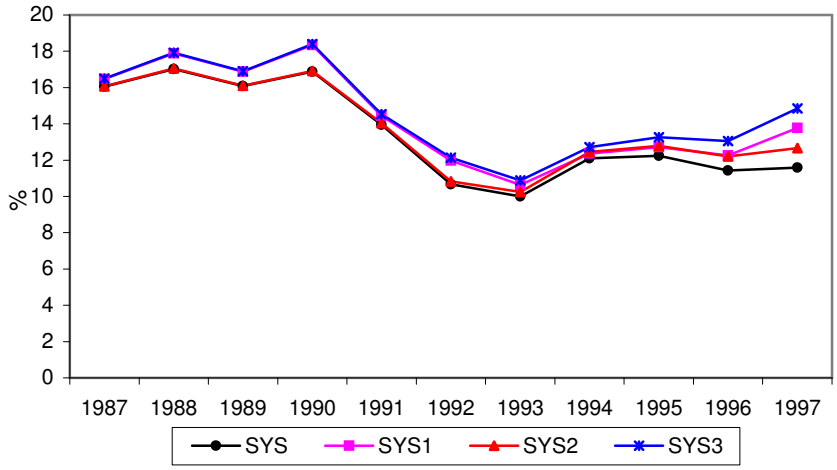


Note: IY Total Investment to GDP ratio. IYS no policy change, IYS1 change in FDI, IYS2 change in Aid, IYS3 change in FDI & Aid.

Fig. 3 Increase in Aid and FDI by a Compounding Rate of 10% on Total Investment

capital, technology, know-how and its backward and forward linkages with other sectors for long-term development strategies, macroeconomic stability alone is not sufficient for catching up; establishing institutions to protect property rights and upholding law and order is at least as important.

As illustrated in Fig. 3, a 10 percent increase in FDI does not change much from the base line of 'no policy change' for total investment (IY) for the period 1987 to 1994. The main reason for this impact is that political instability adversely affects investor confidence. A concern, no doubt valid, is that investors are cautious to initiate investment projects in an uncertain environment. Overall, aid increases public investment, while FDI increased private investment (see also Fig 1 & 2). These differential effects under political and economic reforms indicate that providing a stable environment has a higher impact through FDI and aid flows on total investment. Experiment IYS3 shows that total investment increases to over 15 percent of GDP in 1995 and over 20 percent in 1996.[15] The results indicate that total investment increases gradually after 1994 under the stated assumptions, hence, a swift and constitutionally valid solution to



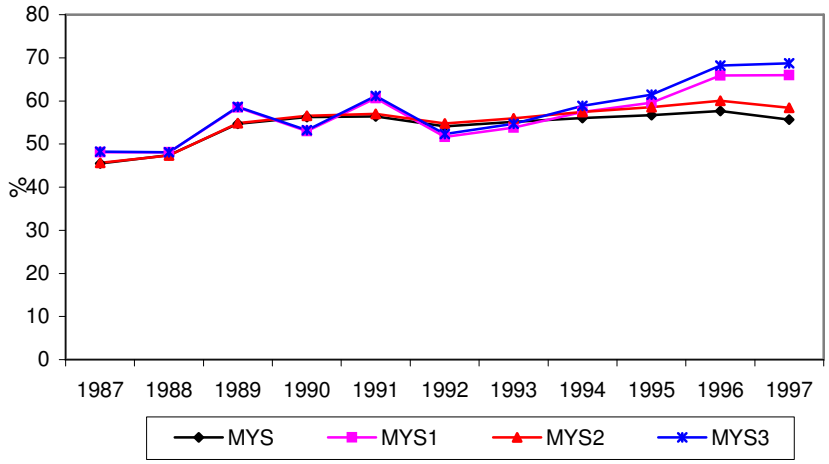
Note: SY-Savings to GDP ratio, SYS no policy change, SYS1 change in FDI, SYS2 change in Aid, SYS3 change in FDI and Aid.

Fig.4 Increase in Aid and FDI by Compounding Rate of 10% on Saving

the country's political and economic crises are necessary for long run growth and development.

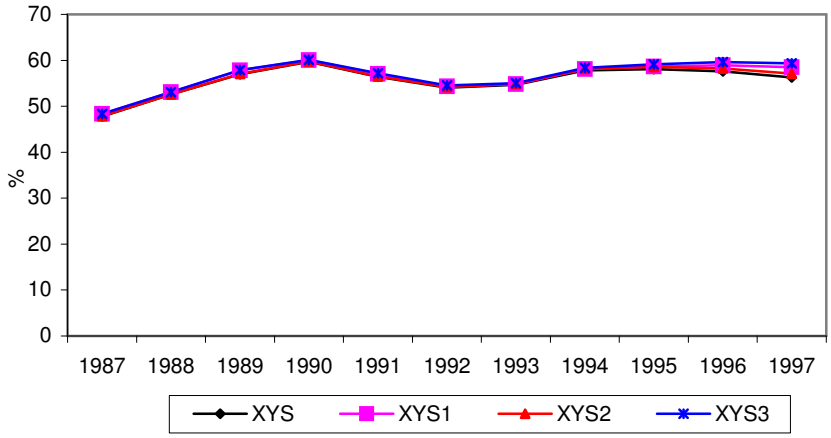
The impact of increasing FDI and aid flows by a compounding rate of 10 percent on savings is evaluated next. The counterfactual simulation values are illustrated in Fig. 4. Increasing FDI has a larger impact on savings than an increase in aid. While the results for experiments SY2 and SY3 do not differ much from 'no policy change' (SYS) it is seen that aid had a very marginal effect only in 1997. FDI impact is slightly higher in the earlier period, i.e. 1988 to 1990 and in 1997. The period of no differential effect during 1993 to 1996 is due to decline in FDI flows caused by increased uncertainty. Measuring the combined effect of FDI and aid, SYS3 shows that aid flows are not large enough to fill the savings gap, and had only a very marginal impact in 1997. The impact of FDI suggests that it supplements domestic savings to some extent, however the impact of coups created uncertainty so savings could not lead to investment demand. Thus, filling the foreign exchange gap becomes a crucial concern for the policy markers as uncertainty creates volatility and is in large part attributable to political instability and the shortcomings in determining macroeconomic policy.

Measuring the impact of an increase in FDI and aid flows on the trade sector show the designed experiments of these capital flows in Fig. 5 and Fig. 6. The estimated counterfactual simulated values for imports indicate that both MYS1



Note: MY Imports to GDP ratio, MYS no policy change, MYS1 change in FDI, MYS2 change in Aid, MYS3 change in FDI and Aid.

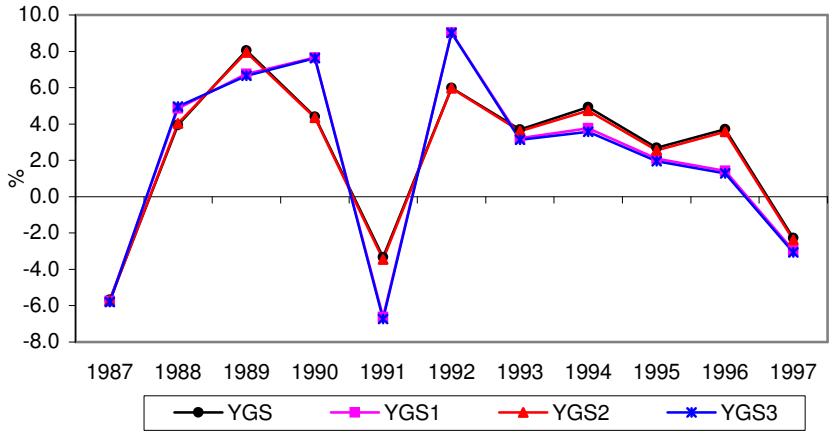
Fig.5 Increase in Aid and FDI by a Compounding Rate of 10% on Imports



Note: XY Exports to GDP ratio, XYS no policy change, XYS1 change in FDI, XYS2 change in Aid, XYS3 change in FDI and Aid.

Fig.6 Increase in Aid and FDI by a Compounding Rate of 10% on Exports

and MYS2 do not change from the base line solution (MYS) from 1987 to 1995 (see Fig. 5). Only for the years 1996 and 1997 FDI shows a substantial impact on imports. Increase in aid does not change from 'no policy change'. The combined effect of the increase in aid and FDI is similar to MYSI for 1996 and 1997. A similar pattern is



Note: YG Growth rate in GDP, YGS no policy change, YGS1 change in FDI, GS2 change in Aid, YGS3 change in FDI and Aid.

Fig.7 Increase in Aid and FDI by Compounding Rate of 10% on Growth

encountered in the case of exports (see Fig. 6), where an increase in FDI or aid does not differ from 'no policy change'. As discussed in the previous results while FDI does increase the export revenue there is still a resource gap as FDI with the import multiplier is larger than the export multiplier, hence capital inflows do not meet the required level of investment in the export sector to increase growth. While aid flows through the export sector, aid is generally tied to purchases from the donor countries so it may also be used to pay for imports, which is why aid does not show any impact from the base line solution. There is still no change when the combined effect of FDI and aid is measured for exports. As resources are scarce, the Fiji government relies on FDI and private investment to import that capital for the growth process. Therefore, Fiji to sustain an export-led growth requires the necessary policy reforms to increase exports and at the same time to attract FDI and domestic private investment.

The counterfactual simulation impact for a 10 percent increase in FDI and aid flows on economic growth is illustrated in Fig. 7. Overall, an increase in FDI does not boost investment and therefore it does not contribute to growth. This effect is explained by the fact that political instability affected investor confidence and discouraged skilled labor force. Coups led to an outflow of skilled manpower and Fiji faced problems of brain drain. Thus, deficiency in the absorptive capacity of capital flows in the economy has been detrimental as Fiji lacked

human capabilities to absorb foreign capital in a productive manner. To increase economic activities FDI depends on imports of investment goods but political instability led to higher risk, a lower rate of returns and a decline in investment. Although several reform policies were implemented after 1990 to enhance growth, the policy experiment (S1 and S2) to increase FDI and aid by a compounding rate of 10 percent show no positive impact on growth. Even though aid to GDP ratio is quite low, increasing aid does not differ from 'no policy change'. In experiment (S3), the combined effect of FDI and aid does not boost economic growth.

Conclusion and Policy Implications

One of the aspects of globalization is that an increase in capital flows to developing countries may contribute to long-term growth. This study investigates the impact of capital flows and evaluates the "what if" and "goal seeking" designed experiments under alternative assumptions between foreign direct investment and aid inflows to determine the effectiveness of globalization on economic growth. Using a dynamic multiplier analysis to measure the impact of capital flows the empirical results show that foreign direct investment and aid are vital components as they have small positive impact on growth, total investment, public and private investment, imports, exports, and savings. The reason however for this small impact is explained by adverse effects of the coups that led to substantial decline in foreign direct investment flows and therefore have no major impact on other growth determinants.

The counterfactual experiment results show that even increasing foreign direct investment and foreign aid flows by a compounding rate of 10 percent does not increase economic growth. Political instability adversely affected various capital-related growth elements like risk, rate of returns, uncertainty, and law and order. With the implementation of economic reform policies in 1990 there is some positive effect only after 1994 on total investment and imports, but overall these factors do not contribute to growth. Exports do not increase and as foreign direct investment and aid are linked to imports via the globalization process and tied aid, these flows do not enhance economic growth. For factors, such as public and private investment, exports, imports and savings to contribute to growth the Fiji Government would need to pursue economic reforms and political stability so that vital conditions are met for capital to fill the resource gap, savings and foreign exchange gaps to contribute to overall economic growth and sustain its long-term development.

The conventional argument is that integration of markets increases the flow of capital in terms of foreign direct investment, trade, aid and technologies and that these expand production and the export base of a country. However, Fiji did not have the capability of obtaining these due to political instability and a steady-state of growth could not be achieved. International transactions of capital flows and trade generally demand an environment for opening opportunities; as such certain preconditions are necessary to achieve economic growth. The fundamental preconditions for growth are political and economic stability that are responsible for changes necessary beyond technical progress and population growth. In terms of policy implications the government pursing reforms has to maintain an environment conducive for effective utilization of capital flows so as to have a systematic relationship between foreign aid, investment and growth. Foreign direct investment should be encouraged as it provides scare resources for long term growth. The benefits from the globalization process will depend on good governance, relevant policies, improvement of competitiveness, an educated manpower, a stable political climate and maintaining macroeconomic stability to overcome economic crises.

This study implicitly provides evidence that in an unstable political environment neither globalization nor implementing economic reform policies are sufficient for growth. The results suggest that recovery from the political crises of May 2000 may not be fast enough as the economy does not show signs of improvements even after a decade since the May 1987 coups.

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Appendix

List of Variables and Data Source

Public Investment, Private Investment and Total Investment	Reserve Bank of Fiji *Reserve Bank Quarterly Review,* (Suva, Reserve Bank, various).
Gross Domestic Product, Exports, Imports, Consumer Price Index, Population, Labor Force, Growth in Per Capita Income of Trading Partners, Inflation Rate, Savings, Terms of Trade, Real Effective Exchange Rate	World Bank *World Development Indicators,* Data on CDROM, (Washington D.C., 1999).
Students Enrolment at Secondary level, and Tertiary levels	United Nations, *Statistical Yearbook For Asia and the Pacific*, (Bangkok, UN, various), World Bank Data on CDROM, (Washington D.C., 1999).