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EDITORIAL NOTE

Five papers make up this issue. The first one, titled *The Impact of Trade Liberalisation on the Economic Performance of OIC Member Countries*, by Gairuzazmi M. Ghani, analyses the affect of trade liberalisation on imports, exports and GDP per capita of Organisation of the Islamic Conference (OIC) Member Countries that have gone through the trade liberalisation process since the 1970s. Using an approach that focus on the changes within-country across time, the study shows that the effects differ from one country to the next. However, on average, trade liberalisation process has improved the countries GDP per capita in the medium term. Unlike the effects on GDP, the ratio of imports, exports and trade over GDP did not improve after trade liberalisation.

The second paper, titled *The Contractionary and Expansionary Effects of Devaluation: Empirical Evidence from Turkey*, by Veli Yilanci and Aycan Hepsag, examines the effect of real devaluation on domestic output for Turkey over the period 1987Q1-2008Q4 by using unit root and cointegration tests. The results show that, increasing money supply has no effect on output; both foreign income and government spending are neutral in short run but has positive effect on output. Real devaluation is contractionary in the short run but it is expansionary in the long run for Turkey.

The third paper, titled *Trade, Investment and Reform: Challenges for Malaysia*, by Shankaran Nambiar, argues that Malaysia needs to reform some institutional aspects of the economy that impact on its trade policy. This is an important exercise because Malaysia is a very open, trade-dependent economy. The manner in which the Malaysian economy was impacted by the global financial and economic crisis of 2008 attests to the fact that Malaysia should be watchful of its trade policy to remain favourable to foreign investors. Since it depends on the developed economies for foreign direct investment there is an urgent need to introduce institutional reform. Accordingly, it is now incumbent on Malaysia to introduce competition policy; to reform and liberalise its government procurement policy; and, generally, to relax those policies that are perceived as being protectionist.

The fourth paper, titled Interest-Free Bonds and Central Banking Monetary Instruments, by Bidabad Bijan, Abul Hassan, Ben Ali Mohamed Sami, and Mahmoud Allahyarifard, introduces various Interest-Free Bonds for central bank, commercial banks, treasury, and corporate entities in domestic and foreign currencies as substitutes for conventional bonds as new financial innovations which will accomplish the infrastructures for development of both domestic as well as foreign financial markets.

The last and fifth paper, titled What Matters for Financial Development in D-8 Countries? Capital Flows, Trade Openness and Institutions, by Faiz Bilquess, Tahir Mukhtar and Sidra Sohail, examines the impact of capital flows, trade openness and institutions on the financial development of D-8 countries. Using dynamic panel data techniques for the period 1985 to 2008, the study finds that capital flows, trade openness and institutions are the significant determinates of financial development in D-8 countries. The findings of the study are robust to alternative measures of financial development, as well as estimation method.

The Impact of Trade Liberalisation on the Economic Performance of OIC Member Countries

Gairuzazmi M Ghani¹

This paper analyses the affect of trade liberalisation on imports, exports and GDP per capita of Organisation of the Islamic Conference (OIC) member countries that have gone through the trade liberalisation process since the 1970s. Using an approach that focus on the changes within-country across time, the study shows that the effects differ from one country to the next. However, on average, trade liberalisation process has improved the countries GDP per capita in the medium term. Unlike the effects on GDP, the ratio of imports, exports and trade over GDP did not improve after trade liberalisation.

1. Introduction

The 21st session of the Standing Committee for Economic and Commercial Cooperation of the Organisation of the Islamic Conference (COMCEC) stressed the need for member states to strengthen intra-OIC trade. This should be done through mutual economic cooperation and progressive trade liberalisation. There are OIC member countries that have liberalised their trading regime and reduced their tariffs and trade barriers for trade with both OIC and non-OIC member, however, some OIC member are still considered as closed economy. For example, as of 2010, only 38 of the 57 OIC member countries are WTO members.²

The reaffirmation of the OIC countries' commitment to trade liberalisation underlines the importance of trade for economic growth and development. Furthermore, the World Bank and the IMF have required trade liberalisation as a part of reform packages when agreeing

¹ Department of Economics, Kulliyah of Economics and Management Sciences, International Islamic University Malaysia.

² Source: www.wto.org

to loans (Foster, 2008). Theoretically, it is expected that trade liberalisation will help countries to gain the static and dynamic gains from trade. Trade liberalisation will help to promote growth from the supply side by leading to a more efficient use of resources, encourage competition, and increase the flow of ideas and knowledge across national boundaries (Parikh, 2006). Consequently, it will increase the growth of output, exports and imports, and improve economic welfare.

However, if the increase in the income elasticity of demand for imports due the liberalisation process is too great, it may constraint a country's economic growth in the long run (Thirlwall, 1979). Studies on trade liberalisation suggest that its impact on economic growth has not been similar across countries (Foster, 2008; Kneller, *et al.*, 2008). Theoretical models and empirical studies that show a positive association (Krueger, 1997; Grossman and Helpman, 1991; Frankel and Romer, 1999; Wacziarg, 2001) can be contrasted with studies that show a non-significant relationship (UNCTAD, 1989; Rodriquez and Rodrik, 2001). Furthermore, evidence showing a positive relationship between trade liberalisation and economic growth has not been as high as expected (Winters, 2004). Rodrik (1999) also noted that the import substitution policies followed in many developing countries until the 1980s were quite successful in some regards, and that their costs have been vastly exaggerated. Hence, it can be argued that the poor performance of developing countries in the 1980s was not due to their import substitution policies per se, but to the countries' inability to respond to economic shocks. Indeed, during the period of Washington consensus,³ the world and regional growth rates have decreased except for China and the South Asian countries (Bosworth and Collins, 2003). The deterioration in regional economic growth rates opened the trade liberalisation policies to challenge.

With respect to the impact of liberalisation on the performance of imports, generally imports increase after liberalisation (Melo and Vogt, 1984; Bertola and Faini, 1991; Santos-Paulino, 2002a; Santos-Paulino and Thirlwall, 2004; Ju *et al.*, 2009; and Ghani, 2009). However, the findings with regard to the impact on exports are mixed. Santos-Paulino

³ The Washington consensus emphasises five key policies: (1) trade liberalisation and export-led growth, (2) financial market liberalisation and financial capital mobility, (3) fiscal and monetary austerity, (4) privatization, and (5) labour market flexibility.

(2002b), Thomas, *et al.* (1991), Bleaney (1999) and Ahmed (2000) showed an increase, but Greenaway and Sapsford (1994) and Jenkins (1996) showed a non-significant relationship. With respect to the impact on trade balance, Ostry and Rose (1992) showed that there is no statistically significant effect, but UNCTAD (1999), Santos-Paulino and Thirlwall (2004), and Parikh and Stribu (2004) showed that liberalization leads to a worsening of the overall trade balance. The importance of trade balance in determining economic growth is supported by Edwards (2004), who showed that current account reversals due to prolonged current account deficits may dampen economic growth; it may even lead to economic crisis. Milesi-Feretti and Razin (2000) emphasized the dangers of large current account deficits that must be compressed when external financing dries up.⁴ Thus, knowing the impact of trade liberalisation on trade balance is important.

The sensitivity of the impact stemming from trade liberalisation suggests that there are conditional factors that have been omitted from the models. Variables suggested to explain the differences have included education, existing levels of development, the strength of domestic institutions, macroeconomic stability and measures taken to tackle corruption (Winters, 2004).

In light of the above discussion, the objective of this paper is to examine the effects of the trade liberalisation process on GDP per capita, imports and exports for the 24 OIC member countries that went through the trade liberalisation process between 1970 and 2001. The study shows that, for the OIC member countries, the trade liberalisation process has improved their GDP per capita in the medium term, but that the improvement of GDP per capita depends on whether the liberalisation process increased imports and exports. However, the ratio of imports, exports and trade over GDP has not improved after implementation of trade liberalisation policies.

⁴Another concern is the decline in tariff revenue that is often a major source of revenue for developing countries. Baunsgaard and Keen (2005) find that low-income countries have not been able to offset reductions in trade tax revenues by increasing their domestic tax revenues.

2. The Impact of Trade Liberalisation on Economic Performance

The balance of payments (BOP)⁵ constrained growth model shows that, in the long run, a country's economic growth is equal to the ratio of its export growth to import elasticity. Hence, if the increase in the income elasticity of demand for imports is too great due to liberalisation, it may constrain economic growth in the long term. The premise of the BOP model is that in the long run trade must balance; the value of exports must equal that of imports. In the short-run, a country can run a trade deficit financed by capital inflows, but it cannot finance an ever-increasing deficit, as deficits above a certain percentage of the GDP will trigger signals that will force an adjustment (Milessi-Feretti and Razin, 2000). Hence, trade deficits after liberalisation may indicate a problem in the long-term.

According to the BOP model, exports must equal to imports in the long run; hence, equating the value of exports to equal to that of imports, we have:

$$P_{d,t}X_t = P_{f,t}M_tFX_t \quad (1)$$

where, X_t and M_t are the quantity of exports and imports during year t , $P_{d,t}$ is the domestic price of exports, $P_{f,t}$ is the foreign price of imports, and FX_t is the exchange rate. Thirlwall and Hussain (1982), and Hussain (1999) extended⁶ the model by adding capital flows to the left hand side of Equation 1. However, there are many instances in which the growth rate of capital flows have fluctuated widely, shifting between deficit and surplus (Perraton, 2003; Ghani, 2006), hence, we do not include capital flows in the model.

The quantity of imports at time t , M_t , and exports at time t , X_t , in (1) can be expressed using the multiplicative function of price and income:

⁵ Chenery and Bruno (1962) for the two-gap models and Bacha (1990) for the third gap. Ranaweera (2003) provides a summary of the World Bank's three-gap model and a critique of the single constraint model of Thirlwall (1979) and Thirlwall and Hussain (1982).

⁶ Extensions of the BOP model have included the addition of capital flows and interest payments. See, for example, Moreno-Brid (2003). Elliott and Rhodd (1999) incorporated debt servicing to the model.

$$M_t = \left(\frac{P_{f,t} F X_t}{P_{d,t}} \right)^{\eta_m} Y_{d,t}^{\pi} \quad (2)$$

$$X_t = \left(\frac{P_{d,t}}{P_{f,t} F X_t} \right)^{\eta_x} Y_{f,t}^{\varepsilon} \quad (3)$$

where η_m and η_x are, respectively, the price elasticity of demand for imports and exports. $Y_{d,t}$ is domestic income and $Y_{f,t}$ is the world or trade partner's income. π is the income elasticity of demand for imports, and ε is the income elasticity of demand for exports. Taking the rate of change of the variables from (1), (2) and (3), we have:⁷

$$p_d + x = p_f + f x + m \quad (4)$$

$$m = \eta_m (p_f + f x - p_d) + \pi y_d \quad (5)$$

$$x = \eta_x (p_d - p_f - f x) + \varepsilon y_f \quad (6)$$

Substituting equation (5) and (6) into (4) and rearranging the balance of payments equilibrium growth rate can be expressed as:

$$y_d^{BOP} = \frac{(1 + \eta_m + \eta_x)(p_d - p_f - f x) + \varepsilon y_f}{\pi} \quad (7)$$

Assuming that, in the long run, $p_d = p_f + f x$, that is relative prices measured in a common currency are to remain unchanged, the balance of payments equilibrium growth rate is given by:

$$y_d^{BOP} = \frac{\varepsilon y_f}{\pi} = \frac{x}{\pi} \quad (8)$$

Hence, following the BOP model, growth rate differences among countries can be explained by how fast a country penetrates the world market (i.e., its export growth), and how good it is in serving its domestic market (i.e., its income elasticity of demand for imports). We

⁷ Time subscripts are dropped for convenience.

can also rearrange Equation 8 in a way that income elasticity of demand for exports multiplied by foreign GDP growth will equal income elasticity of demand for imports multiplied by domestic GDP growth. Assuming that imports and exports need to equal, this means that an increase in the income elasticity of demand for imports requires domestic growth to adjust downwards to equalise the level of exports, especially if there is no increase in exports, or if the increase in import elasticity is too great.

One way to interpret this relationship is as explained by Thirlwall (1979); in an open economy, the dominant constraint is the balance of payments. A difficulty in the balance of payments will curtail demand, thus the potential supply will never be fully realised and investments are discouraged, which results in the slowdown of technological progress. The technological slowdown further reduces the country's competitiveness, thus there will be a vicious circle of slowing economic growth. However, if there is no constraint on the balance of payments, potential supply will be realized, investments are encouraged and thus a virtuous cycle of economic growth is started. Thirlwall (1979) also added that, indeed, the proponents of export-led growth policies are "postulating a balance of payments constraint theory of why growth rate differs" because the BOP model encourages exports in order to avoid balance of payments difficulty.

The importance of import and export growth and their income elasticities in determining long-term economic growth means that the impact of trade liberalisation on the growth of imports and exports is important. If the growth of imports after liberalisation is much greater than that of exports, the liberalisation process may constrain economic growth; thus, countries need to be cautious in the timing of trade liberalisation (Santos-Paulino and Thirlwall, 2004).

3. Trade Liberalisation and Economic Performance of the OIC Member Countries

In order to determine whether a member country has gone through a trade liberalisation episode, this study used the trade liberalisation data compiled by Wacziarg and Welch (2008) that includes 140 countries; this is an update of the Sachs and Warner (1995) liberalisation dates. Forty-one of the 57 OIC member countries are included in Wacziarg and

Welch (2008). Countries that are not included are: Afghanistan, Bahrain, Brunei, Comoros, Djibouti, Iraq, Kuwait, Lebanon, Libya, Maldives, Oman, Palestinian Authority, Qatar, Saudi Arabia, Sudan, Suriname and U.A.E.⁸

Of the 41 countries covered, 28 have liberalised their trading regime, and 13 countries were considered „closed“ as of 2001. Of the 28 countries that have gone through the trade liberalisation process, Indonesia, Jordan and Malaysia were classified as open on or before the 1970s, and Yemen was classified as always open; we did not include these countries in the regression. Countries that were considered closed as of 2001 were: Algeria, Chad, Gabon, Iran, Kazakhstan, Nigeria, Senegal, Somalia, Syria, Togo and Turkmenistan.

Table 1 reports the summary statistics for per capita GDP for the five years before, during and after the countries' liberalisation. It shows that the mean for the growth of GDP per capita increased, and the standard deviation was reduced after liberalisation. Before trade liberalisation, 12 countries had positive GDP per capita growth, but after liberalisation 21 countries had positive growth. However, the mean and standard deviation for GDP per capita are sensitive to the inclusion of Azerbaijan and Tajikistan. The collapse of the Soviet Union in 1991, and the resulting independence of Azerbaijan and Tajikistan in 1991, heavily influenced the averages; the two countries liberalized their trading regimes in 1995. The exclusion of these two countries reduces the mean growth and standard deviation significantly, and hence they are excluded from the regressions. Table 2 shows the ratio of imports and exports as a percentage of GDP for the period before, during and after liberalisation. The growth of real imports and exports has not been included because of unavailability of data. On average, the level of exports and imports per GDP increases after liberalisation, and their standard deviation decreases.

Even though there are improvements in the mean and standard deviation of the variables, the statistics across the countries do differ significantly. The disparity in the statistics for the different countries suggests that the impacts are conditional on many other factors, rather than on trade liberalisation alone.

⁸ There are also problems with data availability for these countries.

**Table 1: Growth of GDP/Capita Five Years Before, During and
After Trade Liberalisation**

	Year of Uninterrupted Openness Begin	Growth GDP per Capita Five years Before Liberalisation	Growth GDP per Capita Five years During Liberalisation	Growth GDP per Capita Five years After Liberalisation	Differences after and before Liberalisation
Albania	1992	0.59	-4.46	6.82	6.23
Azerbaijan	1995	-16.73	1.54	9.73	26.45
Bangladesh	1996	2.43	3.01	3.62	1.19
Benin	1990	-1.21	0.37	1.92	3.13
Burkina Faso	1998	-0.27	4.49	1.89	2.16
Cameroon	1993	-2.40	-6.44	2.02	4.42
Cote d'Ivoire	1994	-1.52	-3.58	2.26	3.79
Egypt	1995	1.46	3.09	1.76	0.30
Gambia	1985	1.07	-0.73	-1.26	-2.33
Guinea	1986	-1.08	1.36	-0.19	0.89
Guinea-Bissau	1987	0.27	1.34	0.86	0.59
Guyana	1988	-4.48	-0.65	5.34	9.82
Kyrgyz Rep.	1994	4.22	-11.18	2.05	-2.17
Mali	1988	-3.03	-0.45	-1.21	1.82
Mauritania	1995	-1.70	1.31	0.37	2.07
Morocco	1984	3.60	0.44	2.75	-0.84
Mozambique	1995	0.34	4.86	4.53	4.19
Niger	1994	1.29	-3.28	0.06	-1.24
Pakistan	2001	0.93	1.85	3.82	2.89
Sierra Leone	2001	-6.28	9.28	3.44	9.72
Tajikistan	1996	-16.53	-4.99	8.45	24.98
Tunisia	1989	2.00	0.07	2.88	0.88
Turkey	1989	1.33	2.77	1.80	0.47
Uganda	1988	-0.46	-0.49	2.47	2.93
	Average	-1.51 (-0.13)	-0.02 (0.14)	2.76 (2.18)	4.26 (2.31)
	Maximum	4.22	9.28	9.73	5.51
	Minimum	-16.73	-11.18	-1.26	15.47
	Stan. Dev.	5.23 (2.50)	4.19 (4.23)	2.73 (2.00)	7.29 (3.22)

Notes: Statistics in parenthesis are after the exclusion of Azerbaijan and Tajikistan.

Table 2: Ratio of Export and Import over GDP Five Years Before, During and After Trade Liberalisation

	Export/GDP			Import/GDP		
	Before Liberalisation	During Liberalisation	After Liberalisation	Before Liberalisation	During Liberalisation	After Liberalisation
Albania	16.22	12.07	12.66	17.88	48.11	34.58
Azerbaijan	51.57	27.42	42.71	48.33	49.30	52.80
Bangladesh	7.68	12.09	14.66	13.21	18.20	20.12
Benin	16.58	15.74	17.05	31.42	28.20	29.56
Burkina Faso	10.68	11.57	9.33	22.61	26.59	23.10
Cameroon	22.03	19.61	22.26	21.73	16.55	17.88
Cote d'Ivoire	36.44	32.72	40.81	29.83	27.49	33.04
Egypt	16.68	24.93	18.68	29.58	31.51	25.56
Gambia	57.64	47.64	43.09	71.26	59.30	53.68
Guinea	29.37	29.84	27.11	28.10	29.55	28.81
Guinea-Bissau	10.23	9.54	10.03	40.48	45.17	38.39
Guyana	58.61	60.79	103.70	74.39	69.46	123.17
Kyrgyz Rep.		33.48	35.44		43.00	52.03
Mali	15.28	16.33	17.93	30.51	36.33	35.05
Mauritania	35.61	37.76	34.32	47.20	48.59	64.36
Morocco	18.13	20.38	24.10	33.47	30.95	28.34
Mozambique	11.68	13.83	26.30	42.03	30.68	41.42
Niger	19.28	15.60	16.83	25.12	20.70	24.11
Pakistan	16.31	15.14	14.56	19.22	15.29	20.16
Sierra Leone	15.82	19.58	23.58	24.84	36.88	33.88
Tajikistan	28.45	68.88	70.78	35.24	74.28	79.75
Tunisia	37.17	36.70	41.77	45.99	40.11	47.65
Turkey	10.67	15.92	15.33	15.22	17.63	18.26
Uganda	13.05	10.06	7.85	18.72	16.83	21.17
Average	24.14 (22.63)	25.32 (23.24)	28.79 (26.24)	33.32 (32.51)	35.86 (33.51)	39.45 (37.01)
Std Dev	15.25 (14.66)	15.86 (13.43)	21.64 (20.32)	16.06 (16.48)	16.37 (14.45)	23.78 (22.96)

Note: Statistics in parenthesis are after the exclusion of Azerbaijan and Tajikistan.

4. Empirical Method

In order to formally examine the effect of trade liberalisation on the economic performance of the OIC member countries, this study followed Kneller *et al.* (2008) approach by focusing on the changes within-country across time for countries that are associated with trade liberalisation. The study uses a panel of OIC member countries that have gone through the liberalisation episodes since the 1970s, and divide the period for every country into three terms: five years before, during and after liberalisation. The year of trade liberalisation is in one of these periods: 1975–79, 1980–1984, 1985–89, 1990–94, 1995–1999 or 2000–2004. The empirical model tests whether there is a difference in terms of the growth in GDP per capita, the level of exports per GDP and imports per GDP in the period before and after the liberalisation process. The model is as follows:

$$y_{it} = \alpha + \beta \text{LIB}_{it} + \mu_i + v_{it}, \quad (9)$$

where y_{it} is the growth of GDP per capita at time t , LIB is the trade liberalisation dummy that equals to zero for the period five-year before liberalisation, and equal to one for the five-year periods during and after liberalisation. The coefficient β measures whether the growth of GDP per capita is significantly different before and after liberalisation. If the liberalisation process improved GDP per capita, the coefficient β will be positive. To examine the effect on exports and imports, we replace GDP per capita with the ratio of imports and exports over GDP.

Table 3 reports the fixed-effects regression's results. The first and second columns report the results when the growth of GDP per capita is used as the dependent variable. In the second column, the two outliers, Azerbaijan and Tajikistan, are omitted from the regression. Columns 3, 4 and 5, respectively, report the result when the ratio of imports per GDP, exports per GDP and trade per GDP are used as the dependent variable. The results indicate that trade liberalisation in the OIC member countries has not improved the GDP per capita, import/GDP and export/GDP of these countries, as the β s are not statistically significant.

However, the impact of trade liberalisation may not be immediate. Greenaway *et al.* (2002) suggested that the impact may follow a J-shape and be complete only after five years. Taking into account the

immediacy of the effect, the study dropped the five-year period during liberalisation from the regression. Table 4 reports the regressions results. It shows that the omission of the period during liberalisation affected the statistical significance of the GDP per capita growth rate. The liberalisation process improved the growth of GDP per capita by about 2 per cent. However there is no change in the non-significance of the results for the ratio of imports, exports and trade per GDP.

Table 3: The Impact of Trade Liberalisation on Economic Performance

	$\Delta\text{GDP}/\text{Capita}^a$	$\Delta\text{GDP}/\text{Capita}$	Import/GDP	Export/GDP	Trade/GDP
α	-1.804 (1.02)	-0.262 (0.74)	32.91* (1.83)	23.436* (3.53)	55.849* (3.02)
LIB	2.998* (1.25)	1.268 (0.90)	2.162 (2.23)	1.306 (1.71)	3.816 (3.67)
R^2	0.10	0.04	0.03	0.02	0.03

Notes: ^aAzerbaijan and Tajikistan were not dropped from the regression. Standard errors are in parenthesis. * denotes significance at the 5% level.

Table 4: The Impact of Trade Liberalisation on Economic Performance (Dropping the Period during Liberalisation)

	$\Delta\text{GDP}/\text{Capita}^a$	$\Delta\text{GDP}/\text{Capita}$	Import/GDP	Export/GDP	Trade/GDP
α	-1.804 (1.12)	-0.262 (0.49)	32.881* (1.97)	22.851* (1.74)	55.730* (3.50)
LIB	4.447* (1.58)	2.355* (0.69)	3.785 (2.76)	3.180 (2.45)	6.966 (4.92)
R^2	0.26	0.36	0.09	0.08	0.09

Note: ^aAzerbaijan and Tajikistan were not dropped from the regression. Standard errors are in parenthesis. * denotes significance at the 5% level.

The result for the ratio of imports per GDP (column 3) is not as expected, as previous studies have shown that imports usually increase after liberalisation. It is expected that reductions in tariffs should have helped to increase imports, if not the exports of the countries, as tariff reductions should reduce the price of imported goods, unless these countries impose non-tariff barriers as a substitution for the tariffs. Another possible explanation is that the increase in real imports and

exports is slower than the increase in GDP, and hence there is not much change in the ratio. Given that there is no change in imports and exports per GDP, the improvement in GDP per capita may not be due to the dynamic gains from trade, as there is not much gain from trade.

As suggested by the BOP growth model, if the increase in the income elasticity of demand for imports is large, economic growth may be constrained in the long run. In the short and intermediate run, however, the increase in income elasticity of demand for imports may lead to a trade deficit if there is no commensurate increase in exports. Hence, a trade deficit after liberalization may indicate that, in the long run, economic growth will be constrained. Given the limitation of data availability, it is not possible to calculate income elasticity of demand for imports for the periods before and after liberalisation. To test whether trade liberalisation impacted GDP per capita through the constraint from balance of payments, we added interactive trade terms to the liberalisation dummy to the baseline model (9):

$$y_{it} = \alpha + \beta \text{LIB}_{it} + \delta \text{LIB*TRADE}_{it} + \mu_i + \nu_{it}, \quad (10)$$

where TRADE is either imports per GDP, exports per GDP, trade per GDP or the difference between exports and imports per GDP (trade balance). Given that the effect on the growth of GDP per capita is not immediate, we drop the period during liberalisation for the regressions. Table 5 reports the results. It shows that the interactive terms are important for explaining the GDP per capita in the countries. Table 5 shows that, for liberalisation to affect GDP per capita, there needs to be an increase in trade, including both exports and imports. However, the interaction between trade balance and liberalisation is not significant. This does not support the BOP model, at least for the intermediate term.

Table 5: The Impact of Trade Liberalisation on the growth of GDP/Capita

	Interactive dummy used			
	Import/GDP	Export/GDP	Trade/GDP	Trade Balance/GDP
α	-0.493 (0.46)	-0.486 (0.46)	-5.914* (1.34)	-0.480 (0.50)
LIB	0.484 (1.21)	1.017 (1.06)	1.889* (0.53)	1.958* (1.05)
LIB*TRADE	0.057* (0.03)	0.060* (0.03)	0.097* (0.02)	-0.058 (0.07)
R^2	0.51	0.50	0.69	0.43

Note: Azerbaijan and Tajikistan were dropped from the regression. Standard error in parenthesis. * denotes significance at the 5% level.

5. Conclusion

The study shows that the trade liberalisation process in the OIC member countries has improved the growth of GDP per capita especially in the medium term, however it has not improved imports, exports and total trade. Even though, the impact of trade liberalisation on trade is not significant, the factors that determine whether trade liberalisation will improve GDP per capita is whether the trade liberalisation process improved exports and imports. If the liberalisation process failed to improve trade, the liberalisation process would not be successful in improving OIC member countries' GDP per capita.

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Appendix: Liberalisation Date

	Country	Year Uninterrupted Openness Began	Date joining WTO
1	Albania	1992	8/9/2000
2	Algeria	n/a	n/a
3	Azerbaijan	1995	n/a
4	Bangladesh	1996	1/1/1995
5	Benin	1990	22/2/1996
6	Burkina Faso	1998	3/6/1995
7	Cameroon	1993	13/12/1995
8	Chad	n/a	19/10/1996
9	Cote d'Ivoire	1994	1/1/1995
10	Egypt	1995	30/6/1995
11	Gabon	n/a	1/1/1995
12	Gambia	1985	23/10/1996
13	Guinea	1986	25/10/1995
14	Guinea-Bissau	1987	31/5/1995
15	Guyana	1988	1/1/1995
16	Indonesia	1970	1/1/1995
17	Iran, Islamic Rep.	n/a	n/a
19	Jordan	1965	11/4/2000
20	Kazakhstan	n/a	n/a
21	Kyrgyz Republic	1994	20/12/1998
22	Malaysia	1963	1/1/1995
23	Mali	1988	31/5/1995
24	Mauritania	1995	31/5/1995
25	Morocco	1984	1/1/1995
26	Mozambique	1995	26/8/1995
27	Niger	1994	13/12/1996
28	Nigeria	n/a	1/1/1995
29	Pakistan	2001	1/1/1995
30	Senegal	n/a	1/1/1995
31	Sierra Leone	2001	23/7/1995
32	Somalia	n/a	n/a
33	Syrian Arab Republic	n/a	n/a
34	Tajikistan	1996	n/a
35	Togo	n/a	31/5/1995
36	Tunisia	1989	29/3/1995
37	Turkey	1989	26/3/1995
38	Turkmenistan	n/a	n/a
39	Uganda	1988	1/1/1995
40	Uzbekistan	n/a	n/a
41	Yemen, Rep.	Always	n/a

Source: Wacziarg and Welch (2008) and www.wto.org
n/a not applicable

The Contractionary and Expansionary Effects of Devaluation: Empirical Evidence from Turkey

Veli Yilanci and Aycan Hepsağ

Main aim of this study to examine the effect of real devaluation on domestic output for Turkey over the period 1987Q1-2008Q4 by using unit root and cointegration tests. The results show that, increasing money supply has no effect on output; both foreign income and government spending are neutral in short run but has positive effect on output. Real devaluation is contractionary in the short run but it is expansionary in the long run for Turkey.

1. Introduction

The large external imbalances are the most important cause of the currency crisis in developing countries. The countries which face up to the currency crisis lose out their external positions because of decreasing export volumes. The devaluation is an effective and noteworthy economic policy tool for increasing export volumes and ameliorating the external position of countries. By raising the exchange and increasing the relative prices of imports, devaluation or currency depreciation switches demand imports to domestically produced goods (Sencicek and Upadhyaya, 2008).

It is assumed that the devaluation has “expansionary impacts” on total output. According to the traditional theory, it is expected that depreciation in domestic currency generally decreases the relative price of domestically produced goods and thereby stimulates demand for domestic export. Hence, currency depreciation can be expected to have expansionary effects on real output (Bahmani-Oskooee *et al.*, 2002).

Although it is expected and assumed that the devaluation has expansionary effects on total output, some of the empirical studies refer

the results that the devaluation has “contractionary impacts” on total output decreasing the channels of aggregate supply and aggregate demand. The foreign demand on relatively inexpensive domestic goods provides to increase exports and decrease imports and these circumstances boost the aggregate demand. However, Krugman and Taylor (1978) argue that the currency depreciation can shift the distribution of income from the groups the marginal propensity to save to the groups the high marginal propensity to save. This would decrease the consumption and in consequence, the aggregate demand. On the other hand, raising the exchange rates reduces the cost of external (imported) goods then this declines the aggregate supply. Thereby a decrease in aggregate demand and aggregate supply cause a decrease in total output.

The aim of this study is to examine the impacts of devaluation for Turkish economy over the period 1987Q1-2008Q4. During the period 1987Q1-2008Q4 Turkey experienced two financial crises and devaluations. The first of the financial crises occurred in 1994 because of the large current account deficit. A sharp and sizeable increase in the current account deficit along with massive requirements for public sector borrowing and, serious policy errors in financing the deficit culminated in the currency crises of 1994 (Sencicek and Upadhyaya, 2008). The large current account deficit forced the devaluation of Turkish lira nearly 39% with the stabilization program named as “5th April decisions”. The decision of devaluation has yielded successful results just for one year because of early elections in 1995.

The second of the financial crisis which the one of the important causes was “the pre-determined exchange rate regime” occurred in 2001. This condition forced the changing exchange rate regime policy the pre-determined to free float and the devaluation of Turkish lira nearly 40%. The devaluation caused successful results with “implied inflation targeting” monetary and free float exchange rate regime policy.

The linkage between output and devaluation has been investigated by a number of studies which give conflicting results. Edwards (1986) examined the effect of real exchange changes on real output using annual data for twelve developing countries over the period 1965-1980. He concluded that devaluations have negative effect on output in the

short run and in the long run devaluations are neutral. Bahmani-Oskooee (1998) used the Engle-Granger cointegration test to analyze the relationship between output and nominal effective exchange rates of 23 less developed countries and found no significant long-run relationship.

Upadhyaya (1999) analyzed the relationship for six countries using annual data over the period 1963-1993 by employing methodology proposed by Wickens and Breusch and found that devaluation has contractionary effect only in Pakistan and Thailand in the long run. Chou and Chao (2001) using annual data for the period 1971 to 1998 found devaluation have contractionary effect on output in the short run for Indonesia, Malaysia, Philippines, South Korea and Thailand.

Bahmani-Oskooee et al. (2002) employed Augmented Dickey- Fuller unit root test and Johansen cointegration test to examine the impact of currency depreciation on output in 5 Asian countries using quarterly data over the period 1976Q1- 1999Q4. The results reveal that the real depreciation is contractionary for Indonesia and Malaysia, expansionary for the Philippines and Thailand and neutral for the real output growth of Korea in the long run.

Upadhyaya et al. (2004) examined the effect of currency depreciation on output using ADF and Phillips-Perron unit root test and Johansen cointegration test using annual data from 1969 to 1998 for Greece and Cyprus. The results show exchange rate depreciation expansionary only in the short run. Bahmani-Oskooee and Kutan (2008) investigated the same issue using bounds test approach to cointegration in nine countries. They found real depreciation is expansionary in Belarus, Latvia, Poland and Slovak Republic, contractionary in Czech Republic, Estonia, Hungary, and Russia and neutral in Lithuania. Kalyoncu et al. (2008) investigated the same issue for 23 OECD countries using ADF unit root test and Engle-Granger cointegration test. They concluded that currency depreciation has negative effect in 6 countries, while has positive effect in 3 countries and no effect in remaining 14 countries. Sencicek and Upadhyaya (2008) examine the contractionary devaluation hypothesis in Turkey using annual data from 1970 to 2004. They concluded while devaluation is contractionary in the short run, it is expansionary in the medium run and neutral in the long run.

2. Model

We consider the model specification that given by Narayan and Narayan (2007) and Bahmani-Oskooee *et al.* (2002) examining the devaluation has expansionary or contractionary impacts on total output for Turkish economy. The form of the model is as following:

$$Y_t = f(M_t, G_t, REER_t, FY_t) \quad (1)$$

In the model as expressed (1) Y_t , M_t , G_t , $REER_t$ and FY_t ¹ denote the log of real gross domestic product (domestic income), the log of real money supply, the log of real government spending, the log of real effective exchange rate and the log of real foreign income index, respectively.

The variables, M_t and G_t represent the monetary and fiscal policies respectively that measure the impacts of devaluation on the internal sector of economy. If the money supply and government expenditure are expanded, the expectations for the monetary and fiscal policies are affirmative thus M_t and G_t would have positive coefficients. Moreover $REER_t$ and FY_t capture the external sector of economy. The expectation for $REER_t$ is unclear. The relationship between $REER_t$ and Y_t depends on the expansionary or contractionary impacts of devaluation. If devaluation has expansionary impacts on output $REER_t$ should carry a positive coefficient. On the other hand, if devaluation has contractionary impacts on output, $REER_t$ should carry a negative coefficient. The expectation for the relationship between FY_t and Y_t is affirmative. Increase of foreign income provides an increase in foreign demand on relatively inexpensive domestic goods. Consequently, increasing the production of domestic goods has positive effect on domestic income and FY_t should carry a positive coefficient.

¹ The foreign income index is obtained by following the method of Bahmani-Oskooee *et al.* (2002). The best of 14 trading partners are that Germany, Italy, USA, UK, Sweden, France, Spain, Austria, Japan, Netherlands, Denmark, Belgium-Luxembourg, Canada, Bulgaria.

3. Data, Methodology and Empirical Results

In this study, we employed quarterly data over the period 1987Q1-2008Q4 which obtained from International Financial Statistics database and Central Bank of the Republic of Turkey Electronic Data Delivery System. We consider five variables to examine effect of devaluation on economic growth as mentioned above.

As stated by Granger and Newbold (1974), the variables in a regression must be either stationary or cointegrated to avoid of a spurious regression problem. We used the Augmented Dickey Fuller (ADF) unit root test to determine the integration properties of the variables. Table 1 shows the results of the unit root test.

Table 1: ADF Unit Root Test Results

Variable	Level		First Difference	
	Constant, No Trend	Constant, Trend	Constant, No Trend	Constant, Trend
LnFY	-0.97 (3)	-1.60 (3)	-9.48 (2)*	-9.49 (2)*
LnG	-1.20 (3)	-1.79 (3)	-11.27 (2)*	-11.23 (2)*
LnM	0.85 (0)	-1.30 (0)	-10.00 (0)*	-10.38 (0)*
LnREER	-1.54 (0)	-3.39 (0)	-9.56 (0)*	-9.50 (0)*
LnY	-0.30 (7)	-1.93 (7)	-4.61 (6)*	-4.56 (6)*

Notes: Optimal lag orders, determined by Schwarz criterion are given in parentheses. * indicates rejection of the null hypothesis at 5% significance level.

Results of the ADF unit root test show all the variables are integrated of order 1, namely they become stationary after taking a difference. After deciding that series are integrated of the same order, we used Johansen's cointegration test to examine whether there is any long-run relationship among the variables. The Johansen's procedure is based on an unrestricted vector autoregression model transformed into the following error correction form:

$$\Delta Y_t = \sum_{i=1}^{k-1} \Gamma_i \Delta Y_{t-i} + \Pi Y_{t-1} + A Z_t + \varepsilon_t$$

Where Δ is the first-difference operator, Y_t denotes a p vector of nonstationary $I(1)$ variables, Z_t shows a vector of deterministic variables. Γ_i contains information on short run adjustment and Π captures the long run relationships in the series. In Johansen's method, we are interested in rank of the Π matrix. If rank of this matrix is 0, we conclude the variables in Y_t are not cointegrated. If Π has rank $(r) < p$, there exist α and β matrixes both have dimension p with rank r and here Π can be represented as $\Pi = \alpha \beta'$. β is the matrix of the cointegration vectors and α is the matrix of the adjustment coefficients to the long disequilibrium.

Johansen (1988) suggests 2 test statistics to examine the rank of Π , trace and maximum eigenvalue tests. The trace statistic tests the null hypothesis $r=0$, against the alternative of $r>0$ while maximum eigenvalue statistic tests the null hypothesis the number of cointegration vectors $(c) = r$ against the alternative of $c=r+1$.

Table 2 summarizes the results of the Johansen cointegration test. We select the order of Vector Autoregressive (VAR) as 3 lags using Schwarz information criterion (SIC) in Johansen's test. Both trace and maximum eigenvalue tests show only one cointegration equation at the 5% level.

Table 2: Johansen Cointegration Test Results.

Null Hypothesis	Statistic	%5 Critical Value	%1 Critical Value
Trace Test			
$r = 0$ *	118.92	87.31	96.58
$r \leq 1$	57.89	62.99	70.05
$r \leq 2$	32.00	42.44	48.45
$r \leq 3$	12.41	25.32	30.45
$r \leq 4$	5.30	12.25	16.26
Max. Eigenvalue			
$r = 0$ *	61.03	37.52	42.36
$r \leq 1$	25.89	31.46	36.65
$r \leq 2$	19.58	25.54	30.34
$r \leq 3$	7.11	18.96	23.65
$r \leq 4$	5.30	12.25	16.26

Notes. * indicates significant at the 5% level.

We reported estimate of this cointegration vector as normalized on Y in Table 3 along with X^2 test statistic for exclusion from cointegration space. The degree of freedom of the X^2 test is 1, equals to the number of cointegrating vector.

Table 3: Estimate of cointegrating vectors

	LnY	LnREER	LnM	LnG	LnFY
Cointegrating Equation 1	-1.87 (14.22)*	-0.05 (25.85)*	-0.05 (0.37)	-1.22 (17.77)*	0.57 (7.30)*
%95 Critical Value:	3.84				

Notes: * denotes rejection of null hypothesis at the 5% level.

Values in parentheses show the critical values.

We presented the cointegration equation in Table 3, as follows;

$$Y = -6.17 + 1.87LnREER_t + 0.05LnM_t - 0.57LnFY_t + 1.22LnG_t - 0.02(trend)_t$$

Where trend = 1987Q1. Since the results show that only the M has an insignificant coefficient, we can state increasing money supply has no

effect on output. Except FY, all significant variables have positive effect on economic growth. As long as government spending increases, it will stimulate the economic growth. On the other hand, the foreign income carries a negative coefficient so we infer that when foreign income increases it decreases output. The coefficient of REER shows the devaluation in Turkey is expansionary in the long run.

If the series are not stationary and there is at least one cointegrating relationship among them, we estimate the Vector Error Correction Model (VECM) with the cointegration terms, are known as the error correction terms, to capture short-run dynamics and long-run equilibrium between the variables. In this study, we estimated the VECM as following

$$\Delta Y_t = \alpha_0 + \sum_{i=1}^k \alpha_{1i} \Delta Y_{t-i} + \sum_{i=1}^k a_{2i} \Delta Z_{t-i} + \beta ECT_{t-1} + \varepsilon_t$$

where ECT_{t-1} is the error correction term derived from the long-run cointegrating relationship, Y_{t-i} is the vector of the log of real gross domestic product (domestic income). Z_{t-i} is the matrix of the vectors the log of real money supply, the log of real government spending, the log of real effective exchange rate and the log of real foreign income index. We present the estimation of VECM in Table 4

We choose the optimal lag for the VECM using SIC. The LM test statistic and RESET test show that there is no autocorrelation problem and no specification error in the model respectively. We focus on the coefficients of REERs in Table 4. Only one quarter lag effect of REER is found significant and negative while 2-quarter and 3-quarter lag effects are insignificant. These results show currency devaluation in Turkey is contractionary only in short-run. Besides we found G statistically significant at 10% level which shows that government spending has negative effect on output in short run. EC term is statistically significant and takes negative coefficient implying deviations from the equilibrium diminish in the long run.

Table 4: Estimate of VECM

Dependent Variable: Y		
Error Correction:	Coefficient	t-statistics
ECT*	-0.2528	[-3.55677]
D(LNY(-1))*	-0.2037	[-1.96371]
D(LNY(-2))*	-0.7458	[-13.4848]
D(LNY(-3))*	-0.2677	[-2.61930]
D(LNRDK(-1))*	-0.2779	[-2.03876]
D(LNRDK(-2))	-0.0909	[-0.68449]
D(LNRDK(-3))	0.1085	[0.88067]
D(LNM2(-1))	-0.0596	[-0.65985]
D(LNM2(-2))	-0.101	[-1.11303]
D(LNM2(-3))	-0.0617	[-0.70610]
D(LNG(-1))**	-0.1744	[-1.86311]
D(LNG(-2))*	-0.216	[-2.81852]
D(LNG(-3))	0.0466	[0.70789]
D(LNF(-1))	-0.1701	[-1.47614]
D(LNF(-2))	-0.0455	[-0.37249]
D(LNF(-3))	-0.0449	[-0.55769]
C*	0.0327	[3.26875]
Adj. R^2 =0.8687		
LM=27,4688 (0,3329)		
RESET F= 0,1946(0.6605)		

Note: *, ** indicates significant at 5% and 10% critical levels respectively.
 Values in parentheses show probability values of the relevant test statistics.

4. Summary and Conclusion

In this article, we employed Johansen cointegration test to examine the effect of real devaluation on domestic output for Turkey using quarterly data over the period 1987Q1-2008Q4. Following Narayan and Narayan (2007) and Bahmani-Oskooee *et al.* (2002), we used an empirical model that incorporates monetary, fiscal variables, foreign income in addition to real exchange rate. We can sum up our results as follows; increasing money supply has no effect on output both in short and long runs; foreign income is neutral in short run while it decreases output in long run; government spending is not effective in the short run, but it stimulates economic growth in the long run and finally while real devaluation is contractionary in the short run, it is expansionary in the long run for Turkey.

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Trade, Investment and Reform: Challenges for Malaysia

Shankaran Nambiar

The purpose of this paper is to argue that Malaysia needs to reform some institutional aspects of the economy that impact on its trade policy. This is an important exercise because Malaysia is a very open, trade-dependent economy. The manner in which the Malaysian economy was impacted by the global financial and economic crisis of 2008 attests to the fact that Malaysia should be watchful of its trade policy to remain favourable to foreign investors. Since it depends on the developed economies for foreign direct investment there is an urgent need to introduce institutional reform. Accordingly, it is now incumbent on Malaysia to introduce competition policy; to reform and liberalise its government procurement policy; and, generally, to relax those policies that are perceived as being protectionist.

Introduction

The current global crisis prompts Malaysia to review its policy on trade, something that is of importance since it is a small open economy. There is no doubt that Malaysia's economic development in the last two decades has been driven by exports. Malaysia's growth has been highly dependent on trade and the inflow of foreign direct investment (FDI). There is some debate on whether Asian countries have decoupled from the economies of developed countries, particularly the United States, the European Union and Japan. The current crisis clearly draws attention to the fact that Malaysia depends on international trade, especially in terms of demand emanating from these countries. What is more, Malaysia's attractiveness as a location for FDI depends on the preferences of these developed economies.

The need for a reappraisal of Malaysia's trade strategy in the years to come is more pressing now than ever. While it is tempting to claim that Malaysia is unduly dependent on developed economies as destinations

for its exports and sources of FDI, it is challenging to suggest how Malaysia could adopt a different strategy to drive its economy. The reliance on external markets has to be taken into account in making policy recommendations.

Malaysia's national considerations cannot be divorced from global changes. In fact, given Malaysia's reliance on external markets and foreign investors there is a need to re-evaluate the functioning and performance of the prevailing institutions, and to assess if they are consistent with rapidly shifting global demands.

The movements in the global scenario in recent years require a more prudent and pragmatic approach to international trade and FDI. With the entry of China into the WTO and China's attractiveness as the workshop of the world, there has been an increasing flow of FDI into that country. This is coupled with the emergence of India and Vietnam's rise as an important destination for FDI in the region. Malaysia can no longer count on a cheap labour force that is reasonably educated. There are other countries that can attract FDI on the basis of a cheap and plentiful supply of labour. Offering free trade zones and accompanying fiscal incentives is no longer as straightforward as it used to be. The ground rules for being a successful export-oriented economy and recipient of FDI have changed. These are no longer features that Malaysia can depend upon for its competitiveness. In a more competitive global environment, Malaysia has to be more efficient, productive and innovative if it is to move out of its middle-income trap (Ohno, 2008). These considerations have to apply to production processes as well as to institutions.

In the light of these observations, this paper will attempt to argue that there is a need for Malaysia to re-assess its institutions in relation to trade and investment. This claim is based on the understanding that microeconomic reform is essential in order to have vibrant manufacturing and services sectors, since producers need to be assured that they can compete in a fair and free manner. Equally, microeconomic reform will mean that economic welfare as a whole will be given importance, rather than the welfare of specific sections of the economy. If the welfare of some groups is targeted, this may jeopardise the welfare of the economy, taken as a total entity.

The second section of this paper will examine the impact of the current global crisis. The purpose of this will be to demonstrate that the Malaysian economy is affected by perturbations originating from developed economies which are its dominant trading partners. This is to motivate an understanding of how dependent Malaysia is on external factors, and how it should accordingly align its economy. The next three sections consider issues that require policy consideration if Malaysia is to be a more attractive location for the inflow of foreign direct investment. Accordingly, the third section will discuss the importance of competition policy. This is followed by an examination of the issue of government procurement. The fifth section discusses protectionism as another obstacle that needs to be lifted, since it impairs the deeper development of deeper trade links with developed economies. Finally, some concluding remarks are made.

Impact of the Crisis on the Malaysian Economy

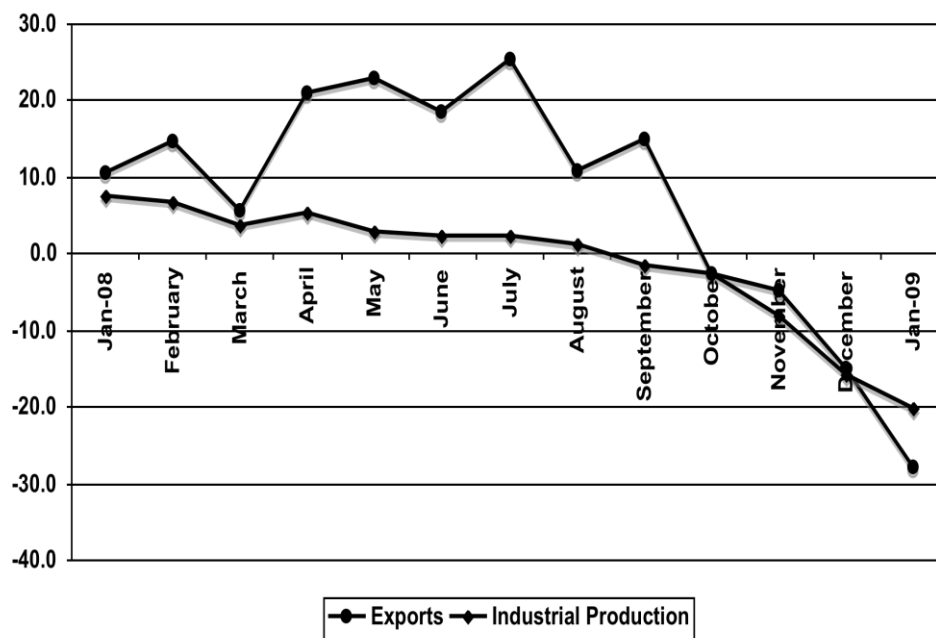
The purpose of this section is to show the extent to which Malaysia depends on external markets. The effects of the current global financial crisis have had far-reaching effects on the Malaysian economy (Goh and Lim, 2009, Nambiar, 2009a). This is because of Malaysia's reliance on exports and FDI to generate growth and employment (United Nations Development Programme, 2006). In fact, the strength of the manufacturing sector in Malaysia depends heavily on export generation. As will be pointed out shortly, it was not only the export-oriented manufacturing sector which was affected by shortfalls in demand as a consequence of the crisis (see, for instance, United Nations Development Programme, 2009). In fact, the effects were transmitted to other sectors in the economy, ultimately affecting aggregate demand and employment (Nambiar, 2009a).

Two indicators that were among the economic indicators to feel the impact of the current crisis were exports and the industrial production index. Export figures, which were doing well in first three quarters of 2008, took a downturn towards the end of that year (Fig.3). In January 2008, exports increased by 10.4 per cent (year-on-year), and more or less doubled to 20.9 per cent in April 2008. However, in October 2008 a negative figure was reported (-2.6 per cent), only to decline more deeply as the months progressed. In December 2008, a decline in exports was

registered (-14.9 per cent), and this worsened in January 2009 (-27.8 per cent).

Imports, which tend to follow export trends rather closely in Malaysia, reported a similar pattern. Imports increased by about 11 per cent (year-on-year) in February 2008 and exceeded 10 per cent in the months of June and July 2008 (12.5 per cent and 15.0 per cent, respectively). Again, the change in imports dived into negative territory from October 2008, falling from -5.3 per cent in that month to -23.1 per cent in December 2008 and dropping further to -32.0 per cent in January 2009. It is understandable that imports should fall along with decreases in exports because imports of intermediate goods are required to meet the production of exports. The strong demand for exports that emanates from Malaysia's major trading partners (US, Japan and the EU) having fallen, it was only to be expected that exports from Malaysia would also fall.

Figure 1: Exports/Industrial Production



Source: Author's calculations compiled from Department of Statistics, Malaysia (2005-2008, 2008a).

Since most of the manufacturing sector is driven by the growth of exports, it stands to follow that the industrial production index (IPI) would reflect the damp export conditions imposed by the global environment. Accordingly, the IPI sank from September 2008 (-1.7 per cent, year-on-year), deepening towards the end of 2008, particularly in December, and right into January 2009 (-15.9 per cent and -20.2 per cent, respectively) (Figure 1). These results are not surprising in view of a) Malaysia's heavy dependence on the E&E sector and b) the fact that Malaysia's major trading partners were badly affected by the global crisis. Claims that Malaysia has decoupled from the US cannot be defended against these outcomes. The argument that Malaysia has shifted its trade towards ASEAN is not convincing in the face of the foregoing evidence. While there is evidence that trade with Singapore and Thailand has been increasing, this phenomenon must be juxtaposed against the nature of production networks. Units in other parts of ASEAN are a part of the production processes where the final products are ultimately exported to countries such as the EU and the US.

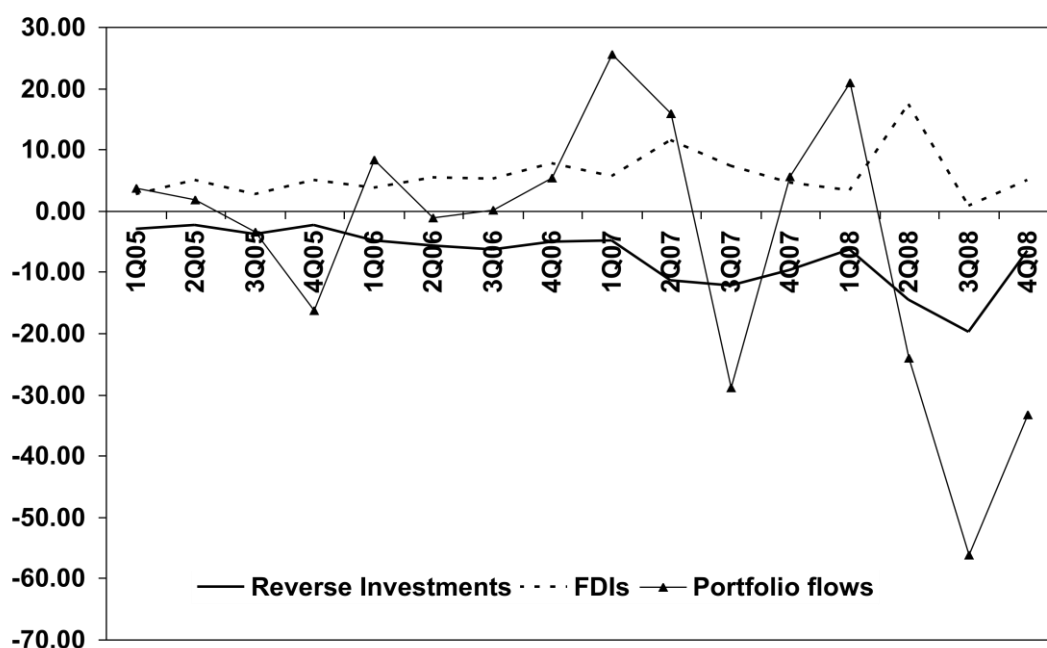
The effects of the crisis began to be expressed through the growth in GDP by the third quarter of 2008. In no sector was this clearer than the manufacturing sector (Fig.4). The manufacturing sector had a 5.6 per cent increase (year-on-year) in the second quarter of 2008. In the following quarter it was positive, but closer to two per cent (1.8 per cent, to be exact); and it was negative (-8.8 per cent) by the fourth quarter of 2008. The construction sector also showed negative growth in the fourth quarter of 2008. In fact, real GDP slid down to a 0.1 per cent growth in the last quarter of 2008.

The capital outflows from Malaysia increased with the onset of the crisis. First, reverse investments that were high in the second half of 2007 (about US\$3.1 billion), slowed down in the fourth quarter of 2008 (about US\$2.0 billion). The outflows of portfolio funds from Malaysian markets were a remarkable signpost of the reality of the global crisis. There was a surge of portfolio flows into the country in the first quarter of 2008 (US\$6.6 billion). But starting from the second quarter the outflows were massive: in the second quarter portfolio outflows amounted to US\$7.5 billion and in the third quarter they hit US\$17.5 billion, flowing out again in huge amounts in the fourth quarter of 2008 (US\$10.4 billion).

Foreign direct investments (FDI) did not in any way compensate for portfolio outflows during the same period. In fact, FDIs have been hovering at around US\$1.6 billion every quarter in recent years (2006-2008). There have been occasional spurts of FDI inflows into Malaysia. In particular there was one in the second quarter of 2007 and another one in the second quarter of 2008. The big increases in FDI that took place in 2Q 2007 amounted to US\$3.6 billion while that in 2Q 2008 touched US\$5.4 billion. The earlier was because of foreign investors (from Japan, the US, Germany and Singapore) making investments in the electrical and electronics (E&E) sector. The latter was because of a huge joint venture enterprise initiated by an Australian company relating to aluminium processing. There is no doubt that with the crisis, and with Malaysia's traditional FDI sources being hit, FDI inflows are affected. This was seen distinctly in the third quarter of 2008 when FDI worth US\$0.3 billion was all that flowed into the country, but it recovered to US\$1.6 billion the following quarter (Fig.6).

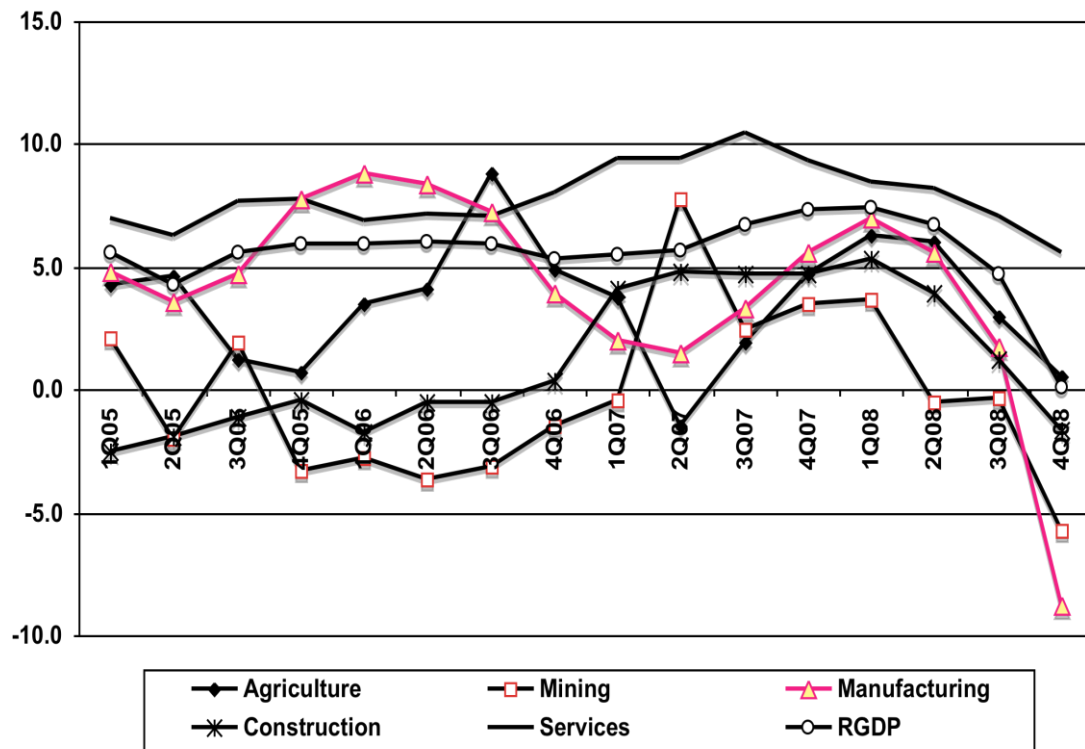
The crisis also prompted a rundown on the foreign reserves that Malaysia had been holding. The economy held foreign reserves valued at US\$314 billion in 2006. Reserves had been increasing in 2007 (US\$386.4) and a further increase was noted in 2008 (US\$447.2). Malaysia's reserves had, indeed, been high in the years subsequent to the 1997 crisis. But the present crisis had its toll on reserves. Quarterly figures depict the reality of the crisis. In the second quarter of 2008 reserves amounted to US\$125.8 billion, but they fell to a limited extent in the following quarter of the same year (US\$109.7 billion). However, in the last quarter of 2008 the fall was even sharper, reaching US\$91.5 billion, implying a dip of US\$18.2 billion of that held in the preceding quarter.

The declines in FDI, foreign reserves and portfolio funds, however, had been well-cushioned by the relatively stable current account balance. There is no doubt that in the fourth quarter of 2008, the current account balance dropped to US\$9.3 billion against the figure in the previous quarter (US\$12.1 billion). But more striking is the overall balance which had been dropping drastically since the third quarter of 2008, falling from -US\$9.8 billion (third quarter of 2008) to -US\$19.4 million in the last quarter of 2008.

Figure 2: Capital Flows (RM Billion)

Source: Author's calculations compiled from Department of Statistics, Malaysia (2005-2008).

The brunt of the crisis's impact on the Malaysian economy was felt most strongly on certain sectors of the economy. One such sector was the manufacturing sector, as we have discussed earlier. Another sector that had been affected was the construction industry. This is seen from some of the indicators on the construction industry. The number of new sales permits has been falling from July 2008. But the figures indicated the pessimism of the industry most distinctly from August 2008. The number of new sales permits, which earlier in the year reached 87, fell to 58 in August and came down to 41 in December 2008. The number of housing approvals also witnessed a downtrend. The change in the production of construction-related products reflected the bleak outlook of the industry. In September 2008 there was a 6.8 per cent increase (year-on-year) in this index; it fell in October (1.9 per cent), but was most distressing in November 2008 (-5.1 per cent).

Figure 3: GDP by Sectors (% Change)

Source: Department of Statistics, Malaysia (2008b).

Viewed, in terms of real GDP by demand expenditure, the most striking decreases in the fourth quarter of 2008 were observed in gross investment (-10.2 per cent), exports (-13.4 per cent), and imports (-10.1 per cent) (Fig.5). Private consumption also fell, but remained at a respectable rate of 5.3 per cent. By way of comparison, in the first quarter of 2008 private consumption had increased by 11.7 per cent. Similarly, in the same quarter gross investment increased by six per cent, with exports and imports showing increases, too (at 6 per cent and 3.4 per cent, respectively). The net effect of all the decreases in the various components of real GDP was a decline in real GDP growth to 0.1 per cent for the last quarter of 2008 as against about seven per cent in the first half of the same year.

As we have seen, the drop in the demand for the export-oriented manufacturing sector had far-reaching consequences. However, Malaysia's geographical area and population do not make it possible for domestic industries to depend significantly on the domestic market. Also, even if a strong services sector is developed, it would still have to be export-oriented. Under these constraints it is imperative that the economy be sensitive to the needs of the external sector. Being sensitive to the external sector would require putting in place institutions that promote trade and the intensification of trade relationships. It would also call for the dismantling of policies such as protectionism that are welfare-reducing and which jeopardise the growth of trade. It is within this context that the next section will elaborate on the institutional foundations that are necessary for a reform of trade policy.

Competition Policy and Law

To date Malaysia does not have a competition policy or law although the government does recognise the merits of a competition policy. In 1993, the Ministry of Domestic Trade and Consumer Affairs announced its intention to draft a "Fair Trade Practices Bill". This did not materialise. Indeed, in the *Eight Malaysia Plan 2001-2005* (8MP) there is an explicit statement accepting the need to encourage competition.

The 8MP clearly enunciates the government's recognition of the usefulness of a competition law and policy and the contribution that it can make towards the economy as a whole. This is clearly expressed in the following statement:

—During the Plan period (2001-2005), efforts will be made to foster fair trade practices that will contribute towards greater efficiency and competitiveness of the economy. In this context, a fair trade policy and law will be formulated to prevent anti-competitive behaviour such as collusion, cartel price fixing, market allocation and the abuse of market power. The fair trade policy will, among others, prevent firms from protecting or expanding their market shares by means other than greater efficiency in producing what consumers want." (8MP, 2001: 467)

One could argue that competition policy, broadly speaking, has two components: 1) regulating the conduct of firms, and ensuring that they do not engage in anti-competitive acts; and 2) ensuring that consumers are able to enjoy the highest level of surplus possible (Lee, 2007). The Malaysian government has not disregarded consumer welfare. The protection of consumer interests has been embedded in the following statutes:

- Money Lenders Act 1951
- Hire-Purchase Act 1967
- Trade Descriptions Act 1972
- Weights and Measures Act 1972
- Direct Sales Act 1993
- Consumer Protection Act 1999

It must be stressed that these Acts do not cover the anti-competitive conduct of firms. These statutes are restricted in their coverage to certain sectors within the economy, viz. the distributive trade and financial sectors. However, the anti-competitive conduct of firms within these sectors is not addressed.

The communications and multimedia sector, however, has the advantage of competition regulation. The communications and multimedia sector is protected by the following statutes:

- Communications and Multimedia Act 1998 (CMA), and the
- Communications and Multimedia Commission Act 1998 (CMCA)

The CMA expressly prohibits rate fixing, market sharing, boycotting of competitors, and tying. This Act has under its ambit the Communications and Multimedia Commission (CMC). Two shortcomings are worthy of note (Lee, 2002). First, the CMA points out that anti-competitive conduct by firms can be tolerated if “national interest” demands it. Second, the CMC cannot make a judgement as to whether or not a firm’s conduct amounts to anti-competitive behaviour. This decision is solely within the mandate of the Minister concerned.

The energy sector is served by the Energy Commission, which looks into issues relating to competition. This commission is provided for by

the Energy Commission Act 2001 (ECA). The ECA points out that one of the principal duties of the commission is to promote competition. As it stands, only the communications and multimedia, and, energy sectors have regulation relating to competition. An approach to competition that is sectorally based and that too limited to two sectors is clearly not satisfactory. Further, as mentioned earlier, consumer protection under the various Acts is, again, confined to the financial and distributive trade sectors. This, too, needs review.

If the intention to have a competition policy and law is slow to see realisation it is because the government has several concerns. One of the considerations is to ensure that the distributive considerations voiced in the NEP are achieved. The government also wishes to pursue measures that will promote the growth of domestic firms. Finally, the government wants to protect domestic firms from the competition that will emanate from multinational corporations. In sum, the government hopes to achieve a development path that is in line with national aspirations rather than one that is based on the dictates of efficiency, fair trade and that can deliver the largest social welfare.

Although there is no published survey on the presence and extent of restrictive business practices (RBPs) in Malaysia, observation tends to support the presumption that there are adequate grounds for investigation and, perhaps, action (Nambiar, 2006). The following is a partial sample of such cases:

- The Federal Land Development Authority (FELDA) was established in July 1956 as a Federal Statutory Body under the Land Development Ordinance No. 20, 1956. It was originally set up to channel funds into the development of the remoter parts of the country. Since 1960 FELDA has been directly responsible for development activities that include land clearing, planting of main crops development of villages, selection and relocation of settlers, management of projects, provision of credit, processing, marketing services and facilitating social and community development. In 1980, a company called FPM was established, with Behn Meyer, a multinational corporation, having significant interests in it. However, this company has received the exclusive right of providing fertilizers to FELDA. FELDA, which used to be a government-run scheme to improve the livelihoods of farmers, is,

obviously, a lucrative market. Because of this exclusive arrangement, local manufacturers do not have access to the FELDA market.

- Megasteel and Titan Plastics are state-owned monopolies that produce steel and plastic for use by auto parts producers. Auto parts producers have the option of importing their inputs or of buying them locally. Since most auto parts producers prefer to buy their inputs from Megasteel and Titan Plastics, these companies are reputed to charge prices above world prices.
- Purchasers of cars report that they are required to buy accessories that they do not wish to possess, or are restricted to the purchase of specific brands that the suppliers have exclusive arrangements. The consumers are also advised to take hire-purchase loans from certain banks and buy their car insurance from prescribed companies in order to avoid delays in the delivery of the cars. These practices constitute tied and forced selling.

Studies indicate that the prevalence of RBPs seems to bear some correlation with the level of concentration in firms. In Malaysia, the following industries in the manufacturing sector are concentrated:

- Oil and gas
- Car assembly
- Tyres and tube manufacturing
- Food and food-related products
- Plastic products
- Hydraulic cement

The oil and gas industry as well as the automotive industry are protected by the government, being national champion projects. On the other hand, the other industries mentioned are controlled by a small number of multinational corporations. Thus there are grounds to suspect and investigate the practice of RBPs, something that can be done satisfactorily if there were a competition law and authority to examine the cases brought forth.

There is a need for Malaysia to seriously examine the need to introduce a competition policy regime and the appropriate legal framework. While it is indeed true that the government has for some time now been entertaining the idea of introducing competition policy and law, not much has been accomplished in concrete terms.

There seems little doubt that the anti-competitive behaviour of firms needs to be arrested; but attendant issues need to be resolved. These include the following:

- ensuring that the competition authority is free from political influence and manipulation
- formulating an industrial policy that relies on the competitive strengths that the country can offer, and
- adopting a policy that does not disrupt national economic and social objectives, particularly as it affects disadvantaged communities and small scale industries.

If the government can shed more clarity on some of the above-mentioned issues, it would allay fears that competition policy and law will restrict the growth and development of the economy and act against public interest. In fact, Malaysia will be perceived as a more attractive destination for investment if it is seen to value transparency, good governance and competition.

Government Procurement

The procurement framework in Malaysia is made up of three main components: a) the agents involved, b) the legal and regulatory framework, and c) the tender process (APEC, 2003a,b). Accordingly, we begin by providing an outline of those entities that participate in the procurement process. The Federal government is the prime entity within the government administration and machinery. The government is composed of 24 ministries and 100 federal departments. This is followed by the 13 state governments, which in turn have 240 state departments. The state governments have a mandate to generate their own revenue and expenditure, but the Federal Government also undertakes projects at the state level, so long as it falls within the

margins of the Constitution. Further to the State governments are the local authorities. The local authorities are made up of the city councils, municipalities and district councils. These bodies derive their revenue through assessments and licensing, and also from financial grants made by the Federal government and the respective state governments. The local authorities are bound by the dictates of the general government procurement procedures, and their financial interests in respect of procurement are ultimately determined by the municipal council. However, they are autonomous in so far as they are free to determine their revenue and expenditure.

Particular mention must be made of statutory bodies and government companies. Both are important entities within the procurement framework. Subsequent to Malaysia's privatisation plan in the 1980s, a number of government-owned companies were privatised. These companies began operating as business ventures, but the government remained an important stakeholder. The Ministry of Finance and the Economic and Planning Unit are represented on the Board of Directors in these privatised companies. Besides, the Ministry of Finance and other government bodies own substantial shares of these companies. Aside from continuing government involvement, albeit indirectly, both as far as ownership of equity and representation in directorship are concerned, these companies are also bound by government approval in certain procurement matters. The Board of Directors do not have the ultimate authority over financial matters relating to the procurement made by their companies. In fact, Petronas, Tenaga Nasional and Telekom have to refer to the Ministry of Finance when procuring goods and services valued at or exceeding RM15 million (about US\$4.7 million). In the case of statutory bodies that are set up under the Statute Acts, their financial authority is vested in the hands of the respective Chairpersons. The procurement that is carried out by statutory bodies has to abide by government procurement procedures although these agencies are otherwise autonomous.

The second element that needs discussion is the legal and regulatory framework that determines government procurement. Government procurement is regulated by two Acts, the Financial Procedure Act 1957 and the Government Contract Act 1949. The latter legislation permits Ministers to enter into contracts with regard to government procurement. Ministers can represent their respective ministries or delegate authority

to appropriate officers within their respective ministries to enter into contract for and on behalf of the Government of Malaysia. The Financial Procedure Act outlines the mode of control and the management of public finances. It also lays out procedures for the collection and payment of public monies as well as procedures for the purchase, custody and disposal of public property.

In addition, government procurements are regulated by the following instruments:

1. Treasury instructions,
2. Treasury circular letters, and
3. Federal central contract circulars.

Treasury instructions are concerned with the financial and accounting procedures that regulate government procurement. Whenever there are amendments to policies, rules, regulations and procedures relating to government procurement they are intimated through Treasury circulars. The Central Contract Circulars contain details of items that are centrally procured. They include details of prices, suppliers and specifications. The purpose of these circulars is to provide suppliers with the necessary information so as to promote local products and local vendors.

The third component that must be addressed is the tender process. This constitutes a crucial part of the procurement policy and process. First of all, it must be noted that a tender process is called for whenever there is a purchase of goods, services or works exceeding RM50,000 (about US\$15,631) in value. Only contractors already registered with the Government may participate in the tender process. The first step in the tender process is to draw up the tender specifications. The specifications are prepared by a technical committee, which takes care to strictly avoid specifications based on specific brands or biased towards particular countries. The committee attempts to provide thorough details, and these details may be in line with international standards, if so required.

The tender specifications and other relevant details (such as price schedule, delivery period, scope of work) are published in the tender documents, and distributed at a cost. The invitation to submit a local tender is advertised in at least one local newspaper printed in Bahasa

Malaysia. When international vendors are expected to participate, the advertisement will appear in at least two local newspapers, one a Bahasa Malaysia daily and the other an English newspaper. In addition, Embassies and High Commissions are informed of opportunities for international tenders.

Once the bids are received they are evaluated by the technical and financial evaluation committees. On the basis of the evaluation made by these committees, the tenders are ranked. The evaluation process takes into account the ethnic origin of the parties that submit tenders and the content of goods. Locally produced goods receive preferential treatment. There is preferential treatment for locally produced goods when they constitute up to 10 per cent of the value of contracts that are below RM10 million (about US\$3.1 million). For contracts that exceed RM100 million (about US\$31.0 million), preferential treatment will be extended if locally produced goods constitute up to three per cent of the value of contracts. There is also an ethnic bias in awarding preferential treatment to parties that tender for contracts. Bumiputera agents who make tender applications will be given preferential treatment for contracts valued between RM100,000 to RM15 million (about US\$31.0 to US\$4.7 million). They will not receive such treatment for purchases exceeding RM15 million (about US\$4.7 million).

The Government Procurement Board is responsible for the selection of successful applicants. In cases where the value of the procurement exceeds certain threshold amounts the Ministry of Finance selects the vendor who is deemed successful. The Ministry of Finance makes a decision when the threshold of the tender value is above RM15 million (about US\$4.7 million) for works and RM7 million (about US\$2.2 million) for supplies and services.

As early as in 1999, proposals were made for an Agreement on Transparency in Government Procurement. The cornerstone of the proposals was non-discrimination in transparency. This implies that each member country would accord equal status to its own suppliers and to those from other countries. In other words, all suppliers, regardless of their countries of origin will be treated equally; no supplier of any specific country will be treated more favourably, neither will domestic suppliers be accorded preferential treatment. Few exceptions, if any, were stated under these proposals and these included the freedom to take

necessary action to preserve essential security interests and the right not to disclose confidential business information or any information that would interfere with law enforcement. Further, the proposed agreement on transparency would require compliance by adopting transparency in the following areas:

1. Procurement rules and methods
2. Tendering procedures
3. Information on procurement opportunities
4. Bid periods and documentation
5. Suppliers' qualifications
6. Decisions on qualification
7. Domestic review procedures, and
8. Dispute settlement

While Malaysia has been, generally speaking, supportive of the need to secure transparency of information about national procurement practices, it has been more reserved about the kind of information that can be openly disclosed. It feels that complete information regarding national regulations and procedures would be too demand a task to accomplish (WTO, 2002:10). Malaysia considers it sufficient to highlight the most significant aspects of a particular regulation or law.

Malaysia holds a guarded position when it comes to the scope of any potential disciplines. Malaysia contends that procurement that does not entertain foreign bidders should not be included within a multilateral agreement. This proposal invites objection for two reasons. First, it ignores the principle that it is to the economic advantage of a government to accept the bid that provides the best price and non-price features (e.g., quality). Second, the proposal to exclude foreign suppliers from participating in certain tenders raises questions on the breadth of the scope and definition of government procurement. The scope and definition of government procurement would be excessively narrow if most contracts were limited, by definition, to domestic suppliers.

Malaysia frequently resorts to the argument of nation building as a rationale to defend its lack of transparency in government procurement. It is argued that government procurement is a necessary instrument to promote social and economic development in the country (WTO,1997).

This point must be accepted, and, indeed, the importance of nation building is accepted within the GPA. As mentioned earlier, the GPA offers developing countries, for example, exceptions for industries in rural and backward areas that produce for government purchase. Indeed, transparency need not be an obstacle to nation building (see for example, Srivastava, 1999). Proposed agreements on transparency are based on the understanding that a transparency agreement will not impose any obligation to change domestic laws and regulations governing government procurement. However, that does not mean that there should be no transparency on procurement rules, regulations and procedures if they concern only domestic suppliers. The concern that Malaysia exercises over the disadvantaged position of the Bumiputera does not mean that its national rules and regulations should be shrouded in secrecy (Nambiar, 2004). Transparency is more likely than not to promote competition among Bumiputera suppliers.

Foreign investors will find the practice of government procurement fairly limiting. They can be expected to find the necessity to form partnerships with Bumiputera partners restrictive and not always mutually beneficial. Another complaint that has surfaced was the lack of openness in tendering processes and the declaration of results. Further, the delivery system is faulted not only due to delays in awarding contracts but also because of the uncertainty that is attached to the processes for the approval of contracts. These are important concerns for a country that is dependent of foreign direct investment. In the 70s it was possible for Malaysia to attract FDI based on its competitiveness arising from cheap labour and tax incentives. Such advantages are no longer sufficient to attract FDI. New issues such as government procurement offer opportunities for attracting foreign investment.

There are concerns regarding the procurement policy in Malaysia on several grounds. First, the policy is weighted in favour of local suppliers and for goods and services that have local content. This restricts the participation of foreign suppliers, and denies the advantages that could otherwise be obtained from trade on the basis of comparative advantage. Second, the procurement policy has an ethnic bias. Considering the social and political reality in Malaysia, this argument has some merit. In any case, the disadvantaged position of the Bumiputera is not an adequate reason for denying transparency in procurement.

Malaysia's stage of development does warrant some space to accommodate its national interests and socio-economic development. The accession to the GPA could lie further down the time horizon. While acceding to an international agreement on procurement could be a more distant matter, there is no reason why Malaysia should not set the stage for open policies on government procurement. Indeed, as a first step towards a possible GPA there is an urgent need for good institutional strategies and processes as mechanisms to facilitate the efficient functioning of the procurement process in Malaysia. Not only will this aid in ensuring that overall social welfare objectives are maximised, but it will also defeat vested corporate interests from utilising the government to achieve their own commercial interests.

There are strong arguments for transparency in institutional process. It is obvious that transparency and good institutional strategies are a good defence against rent-seeking and corruption (Dee, 2006). By implementing transparency one can hope to achieve competition and an efficient allocation of resources. This will help the government achieve value for money in its procurement contracts. Further, transparency would help improve the perception that foreign investors have of Malaysia's procurement policy, in particular, and governance, in general (Nambiar, 2009b). Further, this will encourage the flow of foreign investment, something especially important for an open economy like Malaysia's.

Protectionism as Policy Response

Globalisation brings with it increased competition and more opportunities for trade. However, the competition that comes with globalisation, more than being viewed as a challenge that provides opportunities, is often seen as a threat. This is particularly obvious in the case of Malaysia, which has resorted to protectionism in the case of its automobile industry. This section examines the case of the automobile industry to illustrate how such a policy can retard the potential of an economy such as Malaysia's which depends so heavily on FDI and international trade.

The genesis of Malaysia's protectionism policy in the automotive industry can be traced to the misguided policy of picking "winners" as part of its industrial policy. The automotive industry was seen as a

mechanism for boosting bumiputera participation in industry as well as an industry that would have export potential. However, the industry rather than being an engine for driving exports has proved to be one that has required constant support. The automotive industry would not, in all probability, have survived thus far without government support, and quite obviously does not have the capacity to compete in regional markets, let alone in the international market.

The protectionist policy that the automobile industry has enjoyed has been made possible through the National Automotive Policy, which has been in operation for more than twenty years. This policy has involved extremely high tariffs on imported vehicles and components as well as direct subsidies to Proton and Perodua. Further, the government has imposed a regime of restrictive import licensing that protects the domestic automotive sector from regional and global influences.

The Ministry of International Trade and Industry (MITI) is responsible for the system of import licensing that it manages through its approved permits (APs). APs are required for cars manufactured or assembled overseas before they can be imported, although they still would be subject to current duties. The APs are issued to bumiputera companies, which MITI endorses to be qualified importers. This licensing system has two purposes: a) to limit the number of imported cars relative to the size of the domestic market and b) to encourage the bumiputera to participate in the motor vehicle distribution business. This licensing system creates distortions in the domestic market for automobiles, decreases consumer welfare and creates a class of rent-seekers, all of which hampers achieving any progress towards the conclusion of free trade agreements (FTAs). Aside from the AP system, it has been noted that a large number of the vendors that service Proton and Perodua are bumiputera companies. While encouraging bumiputera participation in business is arguably a necessary part of the national agenda, subsidising a national project that is uncompetitive hardly helps the nation achieve its goals of liberalisation and integration in the process of globalisation. Thus, any argument that claims that it is necessary to support the automotive industry because it sustains the bumiputera vendors would be a flawed argument because the costs of doing so far outweigh any benefits that it could bring to the economy.

In the face of increased competition, it is necessary to liberalise and to remove bottlenecks that restrict trade or that discourage the inward flow of FDI. The automotive policy is an instance of protectionism that is not beneficial to the nation's economic development. First, the automotive industry is an industry that has not been able to survive despite government support for more than 20 years, and it involves the loss of consumer welfare. Second, a protectionist policy such as this is a hindrance to the accomplishment of FTAs with countries such as the United States and Australia. Third, protecting an industry that continually depends on government support is not an appropriate response for a country that has to squarely face the competition for FDI and export markets.

Conclusion

This paper holds the view that Malaysia being a small open economy should be sensitive to the international environment, particularly to shifts that affect Malaysia's exports and the inflow of FDI. This position stems from the fact that international trade and investments drive Malaysia's economic growth. In view of this fact, to adopt institutions or policies that affect the country's ability to attract FDI would only jeopardise our growth prospects.

Similarly, the structure of our exports clearly indicates that our manufacturing sector is largely export-oriented. Clearly, the country needs to adopt policies that will encourage the growth of our export-oriented industries. In that respect there is a need for microeconomic reform that stresses competition, efficiency and productivity. Policies that are based on sound microeconomic foundations will attract FDI and encourage the growth of manufacturing industries.

As the recent crisis has demonstrated, Malaysia is very vulnerable to external shocks. This indicates that Malaysia should be mindful of its domestic policy space. Towards this end, institutional reform has been suggested in order to promote competition, liberalisation and a transparent economy. These policies will be an important step in preparing ourselves for an increasingly competitive economic environment.

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Interest-Free Bonds Financial Innovation: A Monetary Instrument for Economy at Crisis

Bijan Bidabad¹, Abul Hassan², Mohamed Sami Ben Ali³
and Mahmoud Allahyarifard⁴

We introduce various Interest-Free Bonds for central bank, commercial banks, treasury, and corporate entities in domestic and foreign currencies as substitutes for conventional bonds as new financial innovations which will accomplish the infrastructures for development of both domestic as well as foreign financial markets. These asset-backed papers have no pre-fixed interest coupons, and are based upon “loan equal to future debt” or, “debt equal to future loan” with “time-drawing right” which is handed to the other party and outlines the primary market. Furthermore, these interest-free financial innovations include no-short pricing of the securities below its face value, and will substitute for conventional bonds and have efficiency to stabilize domestic and foreign exchange markets, especially when the economy is at crises or liquidity trap and interest rate is low.

I. Introduction

The Islamic financing activity is based on the Islamic faith and must stay within the limits of Islamic Law or the *Shariaa*'s compliant in all of its actions and deeds. The system is different from the traditional one mainly by the fact that rather than fulfilling the only function of financial intermediation as does the conventional banking system, it fulfils the role of direct partnership (Ben Khediri, Ben Ali and Ben-Khedhiri, 2010). Financial instruments play a crucial role in Islamic economies. The main constraint of financial instrument is that its

¹ Chief Economist and Islamic Banking Adviser Bank Melli Iran, Tehran, Iran

² Economist and Senior Research Fellow Markfield Institute of Higher Education, United Kingdom

³ Assistant Professor of Economics IHEC Business School of Sousse, University of Sousse, Tunisia

⁴ Islamic Banking Expert, Research and Development Department Bank Melli Iran, Tehran, Iran

operations must have a counterpart with the real project(s)/asset(s) in the real sector. From a conventional viewpoint, monetary contractionary/expansionary operations may not directly link with the real projects or business activities (Rabin, 2004). For instance, monetary contraction is done by selling central bank monetary securities which do not need to have a counterpart or asset backed in the real sector.

Interest is involved in the most of the conventional banking instruments. When interest rate is very low, we cannot use monetary policy to increase investment by decreasing interest rate; so, there is needed to innovate new interest-neutral financial instruments that can be implemented in critical economic situations. Those instruments must be able to run at low level interest rates, especially at the time of crises, liquidity trap, inconsistency between investment and saving schedules that looks for unattainable negative interest rates.

Islamic securities have become increasingly popular over the last decade, both as a means of rising government finance through sovereign issues, and as a way of corporate entities obtaining funding through the offer of corporate *sukuk* (Moody's, 2007; 2008). The advantage of *sukuk* is that they are expressed to be compliant with *Shariaa* (Wilson, 2008).

In spite of financial and economic needs for debt-based papers, there is dirt of study which concentrated to use bond as a central bank's monetary instrument. This paper examines the potential for Interest-Free Bonds (IFB) as new instruments for financial operations, which could be attractive for generating funds by the central and commercial banks and entities and organizations under both conventional as well as Islamic banking/financial systems. To our knowledge, this is in the first series of the paper to address a theoretical background for such issue.

The rest of the paper is organized as follows: Section 2 discusses on the conventional monetary instruments. Section 3 presents our proposition of bonds in domestic money and in foreign exchange. Section 4 assesses the general monetary effects of issuance of these bonds. We also focus in this section on their particular effects on inflation, interest and exchange rates. Section 5 discusses the transaction of these bonds in

secondary markets based on information technology. Finally section 6 draws conclusion.

II. Conventional Monetary Policy Instruments

In general, monetary policy is a collection of instruments which are used to fulfill macro-economic goals or reduction of damages of the performance of monetary system and controlling liquidity in the economy. The monetary authorities use different instruments which can be generally classified into two groups: quantitative and qualitative monetary instruments. Usually, quantitative monetary instruments change money supply through monetary expansion mechanism. This mechanism is practically the way that money in the economy is created. Qualitative instruments are those monetary arrangements which guide the distribution and allocation of credit within different economic sectors. Interest rate is a central concept in this regard.

In economic literature, interest rate is defined as a variable which is created by supply and demand intersection of money resources. It is not regarded as a monetary instrument. But it has a vast capability for re-allocation of resources which can act an important role in the economy. In other words, banks can decrease the demand for money by increasing interest rate and increase the supply of deposit sources. Since monetary expansion mechanism operates through money circulation between people and commercial banks, hence all quantitative monetary instruments affect both liquidity and the economy. But playing role of monetary instruments is at a time that interest rate is not so low. At the time of crises, liquidity trap and when inconsistency exists between investment and saving schedules that looks for unattainable negative interest rates conventional monetary policies do not work.

Open market operation is one of the most important quantitative instruments. In this method, monetary authorities buy or sell bonds and valuable papers and change the amount of *high powered money* in the economy. Transaction of bonds is based upon interest rates.

As a part of the monetary policy, in order to control liquidity, monetary authorities some times force the banks to keep a certain percentage of their assets in the form of bonds. The purpose of this *reserve*

requirement policy is to prevent money expansion through reduction of free reserves of banks. This instrument does not work at the crises too.

Discount window is also a third type of quantitative monetary instruments. In this instrument, the commercial banks can sell some of their financial papers at discounted interest rates to central bank to solve their liquidity needs. By changing this rate, central bank can affect the banks' resources and credit capability. This instrument is very helpful when banks need loan to get enough liquidity. This method uses again interest rate.

Legal reserve rate is known as credit brake, is another quantitative monetary instrument. It has many capabilities in harnessing banking credits. This rate has a vast range of effects on liquidity in the economy, therefore, it is considered as an important monetary instrument in controlling credit facilities through controlling monetary expansion mechanism. With this rate, an obligation is applied on banks which is not an interest-bearing. However, slightly increasing this rate may become costly for banks, since, it blocks some of their resources in central bank. Furthermore it does not work at the time of crises.

Another group of monetary instruments are called qualitative which practically tries to divert the financial resources through limiting or encouraging credits to those sectors that authorities prefer. Limiting banks in providing credit, defining credit ceilings for banks, and defining the method of allocation of deposit funds are also considered as qualitative instruments. Generally, it is considered that the qualitative instruments do not have the necessary capabilities of helping monetary authorities to reach economic goals efficiently.

In view of the above discussions, it should be mentioned here that the monetary instruments of the conventional banking system cannot help a central bank for controlling liquidity at the time that interest rate is very low in the economy. Therefore, there is a need to innovate appropriate monetary instruments suitable for low interest conditions or the cases in where the interest rate is prohibited in the economy as Islamic banking systems.

III. New Monetary Instruments

In order to use appropriate monetary policies in central banking system that is based mostly upon transaction of bonds, there is a substantial need for efficient financial innovations.

In this section, the four interest-free bonds (IFB) are introduced. These IFBs may also be used as secure financial asset-backed instruments for central bank, commercial banks, treasury and corporate entities under conventional system as well as Islamic system. Furthermore, these bonds may be issued in domestic money and foreign currencies as well.

Interest-Free Bonds

Actually, an interest-free bond means a certificate which is a financial paper that observes the right for the lender to borrow the equal amount to his lending from the borrower. The lender can sell his certificate in the market at market price. In this bond type no interest rate is defined, but the market value of bond is determined by the market at each transaction and the return of bond is not fixed and not predetermined. The interest-free bonds will differ according to their due date (short, medium and long term).

Interest-free bond can be developed as an alternative to debt (bond) by central bank, commercial bank and specialized bank or monetary and credit institutions under the supervision of the central bank or other corporate entities. In this paper, we introduce four interest-free bonds: (i) interest-free bonds to be issued by central bank, (ii) interest-free bonds to be issued by commercial and specialized banks, and money and credit institutions under the supervision of the central bank; (iii) treasury interest-free bonds to be issued by government treasury; and (iv) commercial interest-free bonds to be issued by private or corporate entities with special guarantees.

These interest-free bonds to be issued by central banks or other institutions will have substantial differences with conventional commercial bonds, papers linked to capital, and asset-backed papers as well as zero coupon bonds. The main difference between the interest-free and conventional bonds: former will have no pre-fixed interest rate, and the funds will be offered to other party in form of “debt equal to

future loan”, or “loan equal to future debt” with “time-drawing right”. This also differentiates interest-free bonds from conventional bonds as the latter proceed over the interest bearing securities, whereas interest-free bonds are basically investment certificates consist of ownership claims. In other words, the interest-free bonds will represent ownership of an asset. Like the conventional debt securities, interest-free bonds may be issued for a fixed time period rather than perpetuity as with the equity. The time period can vary similar to conventional treasury bills.

These papers can be transacted in secondary market among banks and others institutions. In this regard interest-free bonds pricing will be formed on a base of demand for and supply of money rather than fixed interest rates for fixed time period. Thus, the interest rate of these bonds is zero but their returns via volatility of bonds' prices in the market are not fixed. Thus the interest rate rigidity is vanished and when the economy goes toward the recession returns of interest-free bonds will become lower and reduces the cost of using money resources; and vice versa for the case of going the economy toward prosperity. That is interest-free bond has a built-in automatic adjustment mechanism which stabilizes the economy. In other world, we can say that their prices will be proportional to capital return of the economy and it does not involve in *Riba* (Bidabad, 2004).

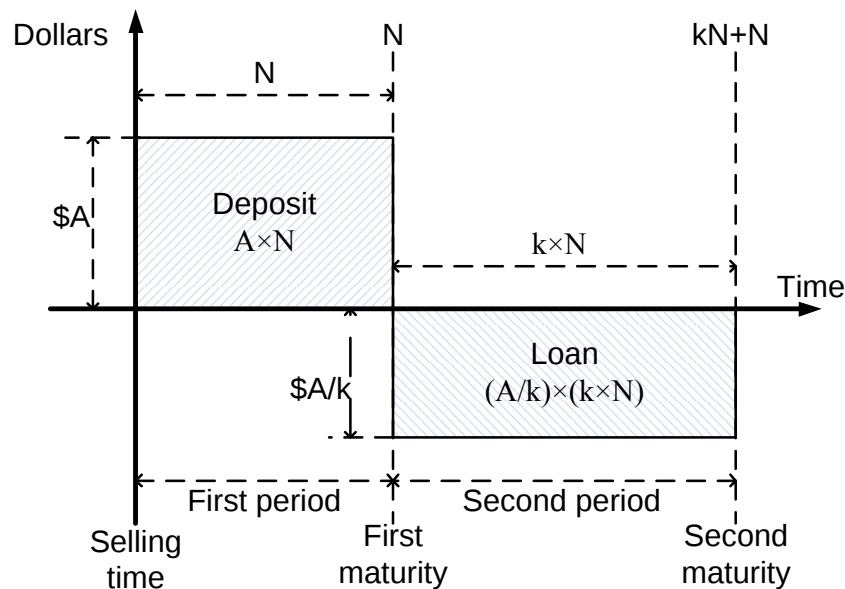
Interest-free bonds will be issued under certain conditions and face value by central bank, commercial, specialized and development banks; and by the private corporate entities. It may be pointed out that commercial, specialized and development banks; money and credit institutes and financial institutions who have prudential and legal reserves at central bank, or private corporate entities (by considering special guarantees) by buying these papers will have the right to use interest-free loan equal to their holding bonds and will pay it back to the issuer at maturity.

Accordingly, by buying \$A bonds with maturity of N months, the buyer will have the right to obtain \$A interest-free loan for a period of N months from the issuer of the bonds. The buyer and seller will agree on fixing combinations of \$A and N months so that the buyer can choose smaller, equal or larger than one ratios from \$A in proportion with N

months. In this case, the result of the amount of money will be multiplied by time which will be equal to $A \times N$. In other words, for example, buyer instead of A Dollars, can borrow $A/2$ Dollars for $2N$ months at the N^{th} month, or $A/3$ for $3N$ months at the N^{th} month. Where, in both cases the result will be equal to $A \times N$. That is: $(A/2) \times (2N) = (A/3) \times (3N) = A \times N$ or generally speaking, instead of \$A, we will receive A/k for $k \times N$ months after the N months. The parameter k can be any agreed figure accepted mutually by the parties, or offered by the buyer. This procedure is depicted by figure 1.

Generally, these bonds practically may have two time periods and two maturity dates (as shown in the figure 1). The first period is equal to N months from the selling time to first maturity, and the second time period is from the first maturity date (N) until the payback date of funds ($kN+N$) or second maturity date. The first maturity is when the seller of papers is obliged to provide the loan equal to A dollars for N months, or A/k dollars for kN months to the buyer. Therefore, the first maturity occurs at the end of N months. The second maturity is the end of contract when the seller will receive back his funds after $kN+N$ months after selling time.

Since banks have prudential and legal reserves at central bank, they will not face loan defaults. In this regard, they can transact these papers in the “interest-free secondary market”. The buyers and sellers of this market generally may be commercial, specialized and development banks and money and credit institutes and reputable funds under the supervision of central bank which have prudential and legal reserves at central bank. In addition, government and private sector can enter this market by considering certain conditions.

Figure 1. Two- Phases Maturity of Interest-Free Bonds (IFBs)*Interest-Free Foreign Exchange Bonds*

It is possible to design and issue interest-free foreign exchange bonds similar to interest-free bonds. In this regard, all four kinds of bonds mentioned earlier, can be issued. The sellers and buyers of these papers will also be similar with above mentioned interest-free bonds transactions and will have no significant difference except for the amount of transaction which may be numerated in one or two exchange rates for the two mentioned time periods. Neither cases, especially when in the first period one foreign exchange is used and in the other period, another foreign exchange is used, create no suspicion of *Riba* involvement. Therefore, according to the above classification, four kinds of interest-free foreign exchange bonds may be designed which include: (i) central bank interest-free foreign exchange bonds to be issued by central bank; (ii) interest-free foreign exchange bonds to be issued by commercial, specialized and development banks, and credit and money financial institutes which are under the supervision of central bank; (iii) interest-free foreign exchange (treasury) bonds to be issued by government treasury; (iv) interest-free foreign exchange (corporate)

bonds to be issued by corporate entities as previously mentioned should involve special guarantees. In this regard, foreign banks can also enter into this market by agreement of central bank to issue interest-free foreign exchange bonds.

The monetary effects of interest-free foreign exchange bonds will be similar to interest-free bonds, plus the capability of stabilizing foreign exchange supply and demand in the economy. Furthermore, the central bank can adjust and manage exchange rate by this instrument and affect exchange rate by changing foreign exchange supply. When the bonds' face values for both periods would be in the same foreign exchange, there will be arrangements for risk coverage (hedging) in the second period. In the case of different foreign exchange to be used for the second period, the same arrangements will be applied for the second period to cover foreign exchange risk. In addition to central bank, other bonds' buyers can also use it to cover their future foreign exchange risk.

IV. Economic Effects of Interest-Free Bonds

Interest-free bond will serve as an important instrument for resource mobilization and will be a primary vehicle for the development of capital market. Sole (2007) argues that expanding range of financing opportunities by different institutions by developing *sukuk* is likely to deepen the financial sector as well as economy as a whole. Therefore, the effects of issuing these bonds by central bank, commercial banks, government treasury and private entities separately will enormously contribute in real sector economy. The following subsection discusses their general economic, financial and monetary effects as well as their particular probable effects on inflation, interest and exchange rates.

Economic, Financial and Monetary Effects of Interest-Free Bonds

When Interest-free bonds are issued by central bank, practically it will decrease the free balances of banks and blocks them by central bank. It will also oblige the central bank to provide banks with the same amount in the second time period. After the end of the second period, central bank will line out the issued papers. Since these operations will affect *high powered money*, it may create the contractionary effects in the first period and expansionary effects in the second period.

When the interest-free bonds are issued and sold by commercial, specialized or development banks, - in addition to increase the amount of these papers in the market - will not increase the liquidity. This is because these operations will likely to be lagged borrowing of banks from each others. Hence, as much as free balances of one bank will decrease, the free balances of others will increase in the first time period, and vice versa will be in the second period. This will result no changes in liquidity of the economy. It will only finance the needs of banks which may not have enough liquidity and will adjust liquidity risk of the banks. In this case, seller and buyer seem to be from the same category of banks. If government or people buy these bonds, there will be no change in the liquidity. However, if central bank buys these papers, it will have expansionary effects in the first period and contractionary effects in the second period on the economy.

As cited before, interest-free bonds can be issued and supplied by government treasury. In this case, necessary conditions will be available for government to finance government budget and government can adjust her fiscal policies by buying and selling these bonds. If banks or private people/entities buy the government-issued interest-free bonds, then it will have no practically effect on the level of liquidity. In other case, if central bank buys these papers, it will have expansionary effects in the first time period and contractionary effects in the second period.

Private corporate entities and institutes can also issue interest-free bonds. In this case, appropriate mechanism should be arranged to decrease the probability of default to zero. For this reason, the seller will provide a (first) bank guarantee equal to the face value of bonds at the time of issuance and surrenders it to buyers. At the end of the first time period the buyer will be obliged to surrender the same bank guarantee to seller of bonds. After returning the funds back from the seller to buyer – at the end of the first period – the first guarantee is canceled. Another (second) bank guarantee is to be issued again for the second part of borrowing. At the end of the second time period –after returning the funds back from buyer to seller – the second guarantee will also be cancelled. The monetary effect in this case again is neutral, but it makes the allocation of money resources better.

Effects on Inflation, Interest and Exchange Rates

As previously shown, buying and selling interest-free bonds by central bank have contractionary effects in the first time period and expansionary effects in the second period. Therefore, central bank will define A , N , or k according to the position of the economy in recovery, prosperity, recession and crisis during business cycles to decrease the severity of economic fluctuation. This policy is similar to *fine tuning* monetary policy in conventional central banking.

Since these bonds can be transacted in the secondary interest-free bond market, they can have automatic adjustment mechanism through relationship of the price of the papers and interest rate. Whenever interest rate is high, the transaction price of the interest-free bonds will fall in the first time period, and will increase the incentive for banks to put their sources at central bank. Hence, they can obtain more funds in the second time period. During prosperity, when interest rate is high, it will limit the free balances of banks and will prevent the expansion of business cycle domain. On the contrary, when interest rates are low, the price of interest-free bonds will increase during the first time period and decrease the incentive for banks to buy these papers from central bank to obtain more funds in the second time period. This means that during economic crisis, when interest rates are low, it will expand the free bank balances and will not let business cycle to be expanded and aggravate the crisis. Central bank can adjust the supply of these bonds through their prices and by changing supply of *high powered money* affects liquidity and hence will affect the interest rates. Accordingly, interest-free bonds can substitute conventional bonds in Islamic central banking, because they have zero interest rate.

When expected inflation and expected interest rates are different in first and second time periods, analysis of the performance of these papers will be somehow different. If the expected natural interest rate in the second time period is more or less than the first time period, it will have different effects on supply and demand of interest-free banking bonds. The more is the expected natural interest rate in the second period, the more will be the price of bonds in the first period and vice versa. Similarly, the less is the expected natural interest rate in the second period, the less will be the bond price in the first financial period. This

issue is very important from central banks' point of view in adjusting proper monetary policy for stabilizing economic activities. In addition, it causes expectations to have essential role in credit behavior of banks. This means that if banks expect increase (or decrease) in natural interest rate during the second period, they will adapt increasing (or decreasing) policy for supplying bonds. From economic point of view, this mechanism can be a factor in dampening oscillation of business cycles.

The mechanism of issuing bonds is different in continuous stable inflation case. If expected inflation rate is not different in both periods, inflation will not affect the bonds' prices. Because, both the buyer and seller expect that the rate of returns of interest-free bonds are the same in two successive periods with fixed expected inflation rate (*Ceteris Paribus*); and the price of interest-free bonds does not change due to inflation expectation. If it is different, it will be expected different prices for bonds in secondary market. If the average expected inflation rate in the first period is less than average expected inflation rate in the second period, then the bond prices will be higher in the first period than the second period. On the other hand, if the average expected inflation rate in the first period is higher than average expected interest rate in the second period, we will have an opposite case and bond prices in the first period will be less than the second period.

The interest rates of deposits and credit facilities in other markets have also important effects on supply and demand and price of interest-free bonds in the secondary market can be studied in two financial periods and according to the length of these periods and at different parts of business cycle.

The effects of issuance of interest-free bonds on exchange rate flows to foreign exchange sector through the created monetary and exchange effects. Change of supply of domestic currency encountering foreign exchange supply, will affect the economy through monetary channels and internal and external interest rates parity.

V. Transaction of Interest-Free Bonds

Interest-free bond transactions will be based on information technology infrastructures. With a defined face value, these interest-free bonds will be issued on internet platform of Non-usury Scripless Security Settlement System (NSSSS) as the primary market and without base price. NSSSS is a market that all Non-usury securities can be transacted in, (Bidabad and Allahyarifard, 2010). NSSSS sub-systems are: Real Time Gross Settlement System (RTGS), Automatic Clearing House (ACH), International Bank Account Number (IBAN), digital certificate and signature (PKI) and electronic notary offices who will issue and confirm digital certificates and signatures.

The issuer will fix a deadline for the tender and receive competitive bids from the buyers. After the deadline, papers will be sold according to the highest bid to the buyer. The bonds can be re-transacted on the same internet platform of NSSSS as the secondary market. Transactions in both markets will be held according to purchase contract and through the tender procedure.

Interest-free bonds can be issued in domestic or foreign exchange on NSSSS as well. These bonds can also be sold by the issuer in primary market. Buyers should have an electronic account or ATM (Automatic Teller Machine) card accepted by the network or a creditable international exchange card for identification.

International Bank Account Number (IBAN) for transaction of interest-free bonds in NSSSS system can be used in electronic payments and settlements. When the bonds are bought in primary market, the secondary market is created in NSSSS system. Customers can enter into this market and may transact the bonds before maturity at competitive prices even for speculative purposes. Transaction records of people and entities will be traced in NSSSS system. The bonds will be sold in the first and second time periods at highest price offered in the secondary market. Automatic Clearing House (ACH), and Real Time Gross Settlement System (RTGS), for interbank settlement of small and large payments are inevitable in NSSSS.

Collaterals

For the first three types of interest-free bonds there is no need for extra collaterals due to the existing legal arrangements; but for the interest-free bonds to be issued by private entities certain collaterals are to be used.

In order to have information technology-based transaction efficiency in the secondary market, special mechanisms should be designed in the software so that the guarantees can also be bought and sold through confident banks when bonds will be issued, bought, sold or settled.

It may be possible to use other collaterals instead of bank guarantees, but may in turn reduce the efficiency of transaction of private interest-free bonds. To solve the problem, it is possible to establish an institution to have the authority to provide guarantees on the basis of collaterals. In this case, the issuer of papers may offer collaterals to these institutions and obtain guarantee certificate. In case, the issuer defaults to pay back the fund at maturity to the bond buyer, then the cited institution will transfer the ownership of the collateral to buyer. Furthermore, in the second time period of the bond, the same institution will obtain the same amount of collateral from the buyer for the interest of the seller and after the end of the second time period and paying back the fund – after the settlement – the guarantee will be canceled. These institutions can be affiliated, for instance, to Justice Department like notary public offices and may be supervised by that department.

VI. Conclusion

Financial instruments must be efficient in application for monetary policies, finance and liquidity management of monetary authorities, government and financial institutes (including banks and non-banks). Interest-free bonds are based on participatory structures with risk sharing by investors. Moreover, interest-free bonds under the central banking operation will be one of the best monetary instruments especially at the time of crises, liquidity trap, inconsistency between investment and saving schedules that looks for unattainable negative interest rates and show how attractive the Islamic finance regime can be. The open market operation

of these interest-free bonds can affect liquidity and other monetary variables such as general price level and interest and exchange rates and thereof, aggregate supply and demand in the economy and balance of payments through monetary expansion mechanism. Interest-free bond offers a substitute for conventional bonds so that in addition to be interest-free, it can efficiently affect monetary policy, and makes financing and liquidity management possible for monetary and banking sector of the economy. Interest-free bonds are simply applicable in both Islamic and conventional (interest-based) economies without any trouble.

In order to apply efficient policies through monetary expansion mechanism, central bank can issue interest-free bonds in NSSSS system and sell the bonds with a face value and without any coupon and with zero interest rate. These securities can be bought by commercial, specialized and those monetary institutes who have prudential and legal reserves at central bank. The purchase of these bonds will decrease the monetary base and thereof, liquidity of the economy in the first time period and increase it with the same amount at the second time period. These bonds can be issued and bought back in the framework of interest-free treasury bonds by government to perform appropriate fiscal policy. Issuance of these bonds by banks and other corporate entities to use excess balances of others entities has no effect on liquidity of the economy and can be used as a solution for decreasing liquidity risk cost and debt leverage. These bonds can also be accomplished by bank guarantees for payback guarantee and establishing some collateral institutes for providing digital guarantee certificates.

The secondary market of these bonds on the web and in NSSSS system with tenders with base price equal to face value and competitive offer during tender time, will give suitable transaction capability to the interest-free bonds. The yield of the bonds will depend on the market price. No base price below its face value will be considered for the interest-free bonds and competitive prices are offered by buyers on the basis of expected interest, exchange and inflation rates. On other words, expected natural interest rate in the first and second time periods will play a dominant role in the market to perform interest-free bonds' prices. In addition, the transaction mechanism designed for the interest-free bonds will create market efficiency and bonds' yields rates converge to real sector rate of return.

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What Matters for Financial Development in D-8 Countries? Capital Flows, Trade Openness and Institutions

Faiz Bilquess, Tahir Mukhtar and Sidra Sohail¹

There is a broad consensus in the finance-growth literature that, with few exceptions, there exists a positive long run relationship between financial development and economic growth. As a result of this widespread consensus, the finance-growth literature has recently begun to shift its attention towards the determinants of financial development. The present study has been conducted to examine the impact of capital flows, trade openness and institutions on the financial development of D-8 countries. Using dynamic panel data techniques for the period 1985 to 2008, the study finds that capital flows, trade openness and institutions are the significant determinates of financial development in D-8 countries. The findings of the study are robust to alternative measures of financial development, as well as estimation method.

“The financial models of the advanced countries are now in some disrepute. What will replace them is still up for grabs. For poorer countries, seeking to develop their financial systems, that means the destination is no longer clear and will not be for some time. That anchor has been removed and will not be replaced until a new system is in place and has functioned for long enough to earn confidence.” (Growth Commission, 2010, p. 25)

1. Introduction

The financial sector plays a vital role in the economic development of an economy. Considerable theoretical and empirical literature on the finance – growth association shows a positive relationship between the

¹ The authors are respectively Professor, Assistant Professor and Graduate Student at the Department of Economics, Fatima Jinnah Women University, Rawalpindi, Pakistan.

measures of financial sector development and economic growth². Financial development increases the economic growth by increasing the ratio of savings to gross domestic product (GDP). The increase in savings will boost the investment and thus the economic growth. Similarly, the marginal productivity of capital will increase that will boost the income of the economy (Yucel, 2009).

Trade openness leads to the expansion of the market, induces an increase in research and development, and reallocates employment to more innovative activities. This promotes the use of a broad spectrum of financial instruments and a passage to foreign financial institutions, which eliminates restrictions on business practices. All these measures result in reducing distortions and volatility in capital inflows, eventually leading to the development of the financial sector. Theory suggests that capital account liberalization can lead to development of financial systems through several channels: firstly, it may mitigate financial repression in protected financial markets, allowing the (real) interest rate to rise to its competitive market equilibrium;³ secondly, removing capital controls allows domestic and foreign investors to engage in more portfolio diversification; and thirdly, the liberalization process usually increases the efficiency level of the financial system by weeding out inefficient financial institutions and creating greater pressure for a reform of the financial infrastructure.⁴ Such improvement in financial infrastructure may alleviate information asymmetry, decreasing adverse selection and moral hazard, and further raising the availability of credit.⁵

However, the experience of Southeast Asian crisis shows that free financial flows are not always desirable as developing countries tend to make themselves vulnerable to sudden and destabilizing withdrawals as in case of South east Asian countries.⁶ A large number of studies argue that a country's financial development is related to its institutional characteristics including its legal framework. The uneven development

² See for instance, King and Levine (1993a,b), Levine (1997), Allen and Ndikumana (1998), Demirgüç-Kunt and Maksimovic (1998), Rajan and Zingales (1998), Christopoulos and Tsionas (2004), Honohan (2004), Hondroyannis et al. (2005), Jalil and Ying (2008), and Ahmad and Aisha (2009).

³ McKinnon (1973) and Shaw (1973).

⁴ Stultz (1999); Stiglitz (2000) and Claesens et al., (2001).

⁵ Chinn and Ito (2005)

⁶ Bailliu (2000)

of the financial systems across the developing countries can largely be explained in terms of lack of financial regulations and varying effectiveness of the legal systems.⁷

While the role of finance in promoting growth in the developed world is well researched and documented, the lack of research on such an important issue facing the financially underdeveloped countries is a serious omission. Indeed it is very important to know the factors that prevent financial development of these countries despite the enormous benefits ensuing from such a policy. The objective of this study therefore is to examine the determinants of financial development in the group of eight developing countries (D-8) based on the theoretical postulates from capital account liberalization, quality of institutions and trade openness perspectives. The D-8 is a group of developing countries with large Muslim populations that have formed an economic development alliance. It includes Bangladesh, Egypt, Indonesia, Iran, Malaysia, Nigeria, Pakistan, and Turkey. The combined population of the eight countries is about 60 percent of the Muslim population, or close to 13 percent of the world population. The objectives of D-8 group are to improve developing countries' positions in the world economy, diversify and create new opportunities in trade relations, enhance participation in decision-making at the international level, and provide better standards of living. The main areas of cooperation include finance, banking, rural development, science and technology, humanitarian development, agriculture, energy, environment, and health. Like many other developing countries, there has been less work on the role of capital flows, trade openness and institutions in financial sector development of D-8 countries and this study will contribute to the emerging literature.

2. A Selective Review of Literature

In contrast to the large body of cross country work examining the relationship between finance and growth, literature investigating the impact of capital inflows, trade openness and institutional quality on financial development is fairly small. Empirical work on the importance and relevance of legal systems for financial development has its origins in the study by La Porta et.al., (1997). This study correlates the relation

⁷ Arestis and Demetriades (1997)

between the legal systems and financial intermediary development across 49 countries governed by four legal systems; English common law, French, German and Scandinavian civil laws. They find that the quantity of external finances is, in part, determined by legal tradition. They also show that in the area of protection against expropriation by insiders, common law countries protected both shareholders and creditors the most, French civil law countries the least, and the German and the Scandinavian civil law countries lie somewhere in between. Findings of this study are supported by Beck et.al., (2001), they show that difference in legal origins help explain the development of financial markets today. Countries with French legal tradition tend to have weak financial institutions, while common law and civil law countries have comparatively strong financial institutions.

Rajan and Zingales (2003) examine the difference in the proficiency of financial depth across countries in a historical perspective over the period 1913 to 1999. They argue that the ruling class opposes financial development because it produces fewer benefits for them than for potential competitors. In the absence of funds from the financial sector the ruling class can finance their investments through retained earnings, whereas potential competitors lack finances. Thus when a country is open to trade and capital flows it promotes financial development which breeds competition and threatens the rents of the ruling class. This implies that open borders help to check the political and economic elites and preserve competitive markets. Using dynamic panel data techniques and data from 43 developing countries during 1980 – 2001, Law and Demetriades (2006) that openness and institutions are important determinants of financial development. Baltagi et.al.,(2007) show that trade and financial openness, as well as economic institutions are statistically important determinants of the variation in financial development across countries and over time since the 1980s. However, they find mixed support for the hypothesis that the simultaneous opening of both trade and capital accounts is necessary to promote financial development in a contemporary setting. Law and Muzafar (2009) examine the determinants of financial development based on the theoretical postulates from financial liberalization, institutional and openness perspectives using the data for 27 countries over the period 1980 to 2001. The dynamic panel data analysis results demonstrate that real income per capita and institutional quality are statistically significant determinants of banking sector development and capital

market development. The trade openness, however, is more prominent in promoting capital market development.

From the above analysis it is quite apparent that there is shift in the direction of analysis from mere finance-growth towards discovering the sources of variation in the financial sector development of different countries. Despite the fact that the literature is scant on this topic the significance of determinants of financial development cannot be overlooked. Unfortunately, no research effort has been made in the past to examine the role of capital inflows, trade openness and institutional quality in the financial sector development of D-8 group of countries. The present study will fill this vacuum by providing some evidence on the influence of political and economic factors on the financial sector development of these countries.

3. Model, Data and Estimation

3.1. The Model

The theoretical literature predicts financial development to be a positive function of real income and the real interest rate. This is based on McKinnon-Shaw type models and the endogenous growth literature. In the models of McKinnon (1973) and Shaw (1973) the positive relationship between financial development and the level of output results from the complementarity between money and capital. It is assumed that investment is lumpy and self-financed and hence cannot be materialized unless adequate savings are accumulated in the form of bank deposits. In Shaw's model financial markets through debt intermediation, promote investment which, in turn, raises the level of output. A positive real interest rate in these models promotes financial development through the increased volume of financial saving mobilization and stimulates growth through increasing the volume and productivity of capital. Higher real interest rates exert a positive effect on the average productivity of physical capital by discouraging investors from investing in low return projects (Fry, 1997). The endogenous growth literature also predicts a positive relationship between financial development, real income and the real interest rate (King and Levine, 1993). Based on these theoretical postulates, a financial development relationship can be specified as:

$$FD = f(RGDPC, R), \quad (1)$$

where FD is financial development, RGDP is the real GDP per capita and R is the real interest rate.

Recently, the role of capital account openness, trade openness and institutions in influencing financial development has also received attention in the literature⁸. Therefore, Equation (1) is extended to incorporate capital flows, trade openness and institutions in order to examine the possible separate influence of these variables on financial development. Thus, the basic financial development equation is specified as follows:

$$FD = f(RGDPC, R, CF, TO, INS), \quad (2)$$

where CF, TO and INS are respectively capital flows, trade openness and institutions. Equation (2) provides the basis for the empirical model that will be estimated in this paper. We specify the following log-linear equation for financial development.

$$\ln FD_{it} = \alpha_0 + \alpha_1 \ln RGDP_{it} + \alpha_2 R_{it} + \alpha_3 \ln CF_{it} + \alpha_4 \ln TO_{it} + \alpha_5 \ln INS_{it} + \varepsilon_{it} \quad (3)$$

For estimating equation (3), two dynamic panel data techniques, namely the Generalized Method of Moments (GMM) and the Pooled Mean Group (PMG) estimator are employed.

3.2. Panel GMM Estimation⁹

We use the Generalized Method of Moments (GMM) estimation technique developed for dynamic panel data that was introduced by Arellano and Bond (1991), Arellano and Bover (1995), and Blundell and Bond (1998). This technique accounts for unobserved country-specific effects, allows for the inclusion of lagged dependent variables as regressors and controls for endogeneity of all the explanatory variables. The starting point is a standard specification in levels, where the

⁸ See for instance, Arestis and Demetriades (1997), Chinn and Ito (2002), Demetriades and Andrianova (2004), Chinn and Ito (2005), Huang and Temple (2005), Baltagi et.al., (2007), Herger et.al., (2007) and Law and Muzafar (2009).

⁹ Sections III.2 is mainly based on Law and Muzafar (2009).

financial development (FD) is persistent, i.e., it is a function of its own past values. The model includes a set of independent variables X_{it} , which are assumed to be weakly exogenous, and a country fixed effect μ_1

$$FD_{it} = \delta FD_{i,t-1} + \lambda X_{it} + \mu_1 + \varepsilon_{it} . \quad (4)$$

After taking first differences, equation (4) yields:

$$\Delta FD_{it} = \delta \Delta FD_{i,t-1} + \lambda \Delta X_{it} + \Delta \varepsilon_{it} \quad (5)$$

Note that in taking the first differences the country fixed effects are dropped out from the model, while the slope coefficients remain the same as in equation (4).

A key problem with the model in equation (5) is the potential endogeneity of the control variables¹⁰ as well as the correlation between the lagged dependent variable $FD_{i,t-1}$ and the error term ε_{it} . This problem can be solved by using higher-order lags of $FD_{i,t-1}$ as instruments for $FD_{i,t-1}$. For the GMM estimator to yield unbiased and consistent estimators requires the validity of the moment conditions

$$E[\Delta \varepsilon_{it} FD_{t-k}] = E[\Delta \varepsilon_{it} X_{t-k}] = 0 \quad \forall k > 1 \quad (6)$$

A special feature of dynamic panel data GMM estimation is that the number of moment conditions increase with T. Therefore a Sargan test is performed to test the over-identification restrictions. There is convincing evidence that too many moment conditions introduce bias while increasing efficiency. It is therefore suggested that a subset of these moment conditions be used to take advantage of the trade-off between the reduction in bias and the loss in efficiency (see Baltagi, 2005).

¹⁰ Some past studies have shown a bi-directional causal relationship between financial development and economic growth (See for instance, Demetriades and Hussein, 1996; Luintel and Khan, 1999; Katircioglu et al., 2007; Yucel, 2009).

3.3. Pooled Mean Group Estimation

The Pooled Mean Group (PMG) estimation proposed by Pesaran et. al., (1999) is well suited to the analysis of dynamic panels, as it has the advantage of being able to accommodate both the long run equilibrium and the possibly heterogeneous dynamic adjustment process. Panel methods have become popular in cross sectional macro data sets, since they provide greater power than individual country studies and hence greater efficiency. In PMG estimation, only the long run coefficients are constrained to be the same across countries, while the short run coefficients are allowed to vary. Setting this out more precisely, the unrestricted specification for the autoregressive distributed lag (ARDL) system of equations for $t=1,2,\dots,T$ time periods and $i=1,2,\dots,N$ countries for the dependent variable y is:

$$y_{it} = \sum_{j=1}^m \phi_{ij} \Delta y_{i,t-j} + \sum_{j=0}^n \gamma'_{ij} \Delta x_{i,t-j} + \mu_i + u_{it} \quad (7)$$

where x_{it} is the $(k \times 1)$ vector of explanatory variables for group i and μ_i represents the fixed effects. In principle the panel can be unbalanced and m and n may vary across countries. This model can be re-parameterized as a vector error correction model (VECM) system

$$\Delta y_{it} = \theta_i (y_{i,t-1} - \beta'_i x_{i,t-1}) + \sum_{j=1}^{m-1} \phi_{ij} \Delta y_{i,t-1} + \sum_{j=0}^{n-1} \varpi'_i \Delta x_{i,t-j} + \mu_i + u_{it} \quad (8)$$

where β_i s are the long run parameters and θ_i s are the error correction parameters. The pooled group restriction is that the elements of β are common across countries, so that

$$\Delta y_{it} = \theta (y_{i,t-1} - \beta' x_{i,t-1}) + \sum_{j=1}^{m-1} \phi_{ij} \Delta y_{i,t-1} + \sum_{j=0}^{n-1} \varpi'_i \Delta x_{i,t-j} + \mu_i + u_{it} \quad (9)$$

All the dynamics and the error correction model (ECM) terms are free to vary. Estimation of this model is by maximum likelihood. The hypothesis of homogeneity of the long run policy parameters cannot be assumed a priori and is tested empirically in all specifications by a Hausman-type test (Hausman, 1978). The PMG estimations require

selecting the appropriate lag length for the individual country equations. This selection is made using the Schwarz Bayesian Criterion (SBC).

3.4. Data

The required data set consists of a panel of observations for D-8 group of countries for the period 1985 to 2008. An important advantage of using panel data is that these capture both time series and cross section variations in variables. Several measures of financial development have been proposed in the empirical literature. Quantity indicators based on monetary and credit aggregates are the traditional measures of financial development and deepening. Although they may not be able to assess accurately a country's financial development (Lynch, 1996) they are the only indicators readily available in the monetary survey in IMF Statistics especially for developing countries. The study, therefore, has used liquid liabilities (LL) and private sector credit (PSD) as indicators of financial sector development. The liquid liabilities indicator (LL) represents the ratio of liquid liabilities to GDP, where liquid liabilities consist of currency held outside the banking system plus demand and interest bearing liabilities of banks and non-bank financial intermediaries. Since LL reflects the overall size of the financial intermediary sector it is a typical measure of financial depth. It does not, however, distinguish between the allocation of capital to the private sector and to various governmental and quasi-governmental agencies. In an effort to isolate credit issued to the private sector alone and not to governments, government agencies and public enterprises, we will also consider the indicator private sector credit (PSD) which equals the value of credits by financial intermediaries to the private sector as a ratio of GDP. This measure of financial development is a measure of financial sector activity. Both these series have been sourced from the World Bank's World Development Indicators (2009) henceforth WDI and updated version of Financial Structure Database (Beck et. al., 2009).

The trade openness (TO) indicator employed in the analysis is proxied by total trade (the sum of exports and imports) over GDP, whereas the capital flows (CF) indicator is proxied by gross private capital flows (the sum of capital inflows and outflows) over GDP. Both variables have been obtained from the WDI. Annual data on real GDP per capita (RGDPC) have been collected from the WDI based on the constant US dollar prices for the year 2000. Data for real interest rate have been

sourced from WDI. The institutions (INS) data set employed in this study was assembled by the IRIS Centre of the University Maryland from the International Country Risk Guide (ICRG) – a monthly publication of Political Risk Services (PRS). Following Knack and Keefer (1995), five PRS indicators used to measure the overall institutional environment are: (i) Corruption; (ii) Rule of Law; (iii) Bureaucratic Quality; (iv) Government Repudiation of Contracts; and (v) Risk of Expropriation. The above first three variables are scaled from 0 to 6, whereas the last two variables are scaled from 0 to 10. Higher values imply better institutional quality and vice versa. Since all these aspects of the institutional environment are likely to be relevant for the security of property rights, the institutions indicator is obtained by summing the above five indicators¹¹. Finally, it is worth mentioning that consistent time series data for Iran are not available, so we have excluded Iran from our sample.

Tables 1 and 2 indicate the correlation among the variables, each of which corresponds to the two financial development indicators; liquid liabilities and private sector credit. As shown in both the tables, the financial development indicators are positively correlated with real GDP per capita, interest rate, capital inflows, trade openness and institutions. For example, the capital flows, trade openness and institutions have a positive correlation of 0.49, 0.48 and 0.43 respectively, with liquid liabilities and a positive correlation of 0.44, 0.46 and 0.59 respectively with private sector credit.

¹¹The scale of corruption, the rule of law and bureaucratic quality were first converted to 0 to 10 (multiplying them by 5/3) to make them comparable to the other indicators. Numerous studies have employed this data set in the empirical analysis, among others Knack and Keefer (1995), Hall and Jones (1999), Chong and Calderon (2000), Clarke (2001), and Law (2009).

Table 1. Correlations Matrix. Financial Development Proxy: LL

LTO	LL INS	LRGDPC	R	LCF
LL	1.0000			
LRGDPC	0.6154	1.0000		
R	0.1972	0.3133	1.0000	
LCF	0.4955	0.4394	0.2341	1.0000
LTO 1.0000	0.4821	0.4266	0.2487	0.3862
INS 0.3969	0.4367 1.0000	0.4763	0.3259	0.4156

Table 2. Correlations Matrix. Financial Development Proxy: PSC

LTO	PSC INS	LRGDPC	R	LCF
PSC	1.0000			
LRGDPC	0.6736	1.0000		
R	0.1847	0.2511	1.0000	
LCF	0.4459	0.4063	0.2957	1.0000
LTO 1.0000	0.4681	0.4662	0.3141	0.3836
INS 0.3784	0.5926 1.0000	0.4555	0.2815	0.4112

4. Results and Discussion

The empirical results of the study are reported in tables 3 and 4 respectively using liquid liabilities (LL) and private sector credit (PSD) proxies for financial development.

**Table 3. Results of Dynamic Panel Data GMM Estimation
(Dependent Variable: Financial Development)**

	Model 1	Model 2
Variables	LL	PSD
Constant	-0.07 (-0.94)	-0.04 (-0.57)
LRGDPC	0.47 (12.17)***	0.53 (6.561)***
R	0.01 (0.27)	0.03 (0.63)
LCF	0.12 (16.82)***	0.18 (6.25)***
LTO	0.17 (5.65)***	0.29 (7.97)***
LINS	0.29 (2.19)**	0.47 (3.41)***
FD _{it-1}	0.68 (9.55)***	0.74 (10.42)***
Sargan Test	13.56 (0.35)	17.88 (0.24)
N	7	7
T	24	24

Notes: Figures in parentheses are t-statistic except for Sargan test, which is p-value.
*** and ** indicate significance at the 1% and 5% levels, respectively.

Table 3 reports the results for GMM estimation technique. To begin with, the estimated coefficients of both the liquid liabilities and the private sector credit are positively related with the real GDP per capita. These results suggest that economic growth seems to lead to the financial development. It is important to note that signs of the estimated coefficient on real GDP per capita are consistent with our expectations. Economic growth causes financial institutions to change and develop,

and financial as well as credit market to grow (Yucel,2009). The financial development is demand driven and economic growth leads to the increase in the aggregate demand. For real interest rate we find insignificant results in both the models. Therefore, the findings of the study imply that interest rate is an insignificant determinant of financial development in D-8 countries. In both the models capital flows term enters with positive and highly significant coefficient. This result is validating the predictions of Klien and Olivei (1999) that capital flows liberalization will foster the financial development. However, Chinn and Ito (2005) find that capital account liberalization contribute to financial development but only when a threshold level of general development of legal systems and institutions has been attained. They find that financial development appears to depend upon capital account openness both individually and in interaction with the level of legal development.

A positive association is observed amongst the trade openness and both measures of financial development. Model 1 indicates that a 1 percent increase in the trade openness will improves the liquid liabilities by 0.17 units. Whereas under model 2, a 1 percent increase in trade openness boosts the private sector credit by 0.29 units. With the openness of trade the demand for the finance increases and this leads to the financial development. The positive relation is in line with the findings of Haung and Temple (2005) that improvement in the financial sector is due to the enhancement of trade openness. Trade openness by increasing the efficiency of technology (through knowledge spillovers) might increase the payoff to financing young entrepreneurs, fostering the formation of active capital markets and avoiding “low growth trap” equilibria (Ginebri, Petrioli and Sabani, 2001). Similarly Svaleryd and Vlachos (2002) find a positive and economically significant relationship between financial development and liberal trade policies. In their view openness to trade will create new demands for external finance which will thus encourage the development of financial markets.

The institutional quality is proven to be a significant determinant of financial development in both the models. The results indicate that institutional quality matters for financial development and these results support the findings of Chin and Ito (2002) and Demetriades and Andrianova (2004). Furthermore, these results are also in accordance with law and finance theory which asserts that in countries where legal systems enforce private property rights, support private contractual arrangements and protect the legal right of investors, savers are more

willing to finance firms, and financial markets prosper (Dorrucci, 2009). The institutional quality makes a lot of difference in the financial development because with the improvement in institutional setup the availability of finance becomes easier and also the confidence within a society increases. Countries with legal and regulatory systems that give a high priority to creditors receiving the full present value of their claims on corporations have better functioning financial intermediaries than countries where the legal system provides much weaker support to creditors (Levine, 1999). The lagged dependent variable is statistically significant, which implies that the dynamic GMM is an appropriate estimator and the empirical results are reliable to carry out the statistical inference. The Sargan test does not detect any problem with instrument validity, and the instrumental variables therefore seem to be valid and highly informative.

**Table 4. Pooled Mean Group Estimation for ARDL
(Dependent Variable: Financial Development)**

	Model 1	Model 2
Variables	LL	PD
LRGDPC	0.33 (3.21)***	0.26 (2.97)***
R	0.04 (0.84)	0.03 (0.48)
LCF	0.39 (3.58)***	0.17 (1.89)*
LTO	0.11 (1.87)*	0.08 (1.33)
LINS	0.24 (2.45)**	0.35 (3.42)***
ECT(-1)	-0.24 (-6.74)***	-0.15 (4.97)***
Joint Hausman Test for Joint Heterogeneity	4.36 (0.52)	5.87 (0.47)

Notes: Figures in parentheses are t-statistic except for Hausman test, which is p-value. ***, ** and * indicate significance at the 1%, 5% and 10% levels, respectively.

The results for PMG estimation reported in table 4 present estimates of the long run coefficients, the adjustment coefficients and Hausman test statistic. The lag order is first chosen in each country on the unrestricted model by the Schwarz Bayesian Criterion (SBC), subject to a maximum lag of 1, then using these SBC-determined lag orders, homogeneity is imposed. One of the strengths of the PMG framework is the fact that it allows formal testing, using a Hausman test, of whether the assumption of long run homogeneity across countries is valid. The results in the both models indicate that the joint Hausman test statistic fails to reject the null hypothesis of homogeneity of slopes in the long run is not rejected for all variables jointly. It implies that the data do not reject the restriction of common long run coefficients, so pooling the data (by using the PMG estimator) appears to be a preferable and more informative procedure.

Results for all the explanatory variables are similar to those with the panel GMM estimator. The coefficients of real GDP per capita, capital flows, trade openness and institutions are positive and statistically significant for both proxies of financial development. These findings further validate the results obtained in the panel GMM estimator (see table 3). All this implies that financial flows, trade openness and institutions are significant determinants of financial development in D-8 countries while real interest rate again appears as an insignificant determinant of financial development. The error correction term (ECT) is significant in both the models and gives evidence of mean reversion to the long run relationship. However, in model 1 speed of adjustment to long run equilibrium is relatively greater than that of model 2.

5. Conclusion

The role of finance in promoting growth is well researched and documented in the literature. It has also been extensively documented that the level of financial development varies greatly across countries. Recently, the finance-growth literature has focused on the financial development policies issues, namely the sources of financial development. The present study has been conducted to examine the impact of capital flows, trade openness and institutions on the financial development of D-8 countries. In this regard data for the seven member countries of this group have been used for the time period 1985 to 2008, owing to data limitations, Iran is excluded from the sample. Two

Different dynamic panel data estimation techniques, panel generalized method of moments (GMM) and pooled group mean (PGM) estimator, have been applied in the study.

There are different proxies used for financial development. However, the present study has used liquid liabilities and private sector credit as proxies for financial development in D-8 countries. Two models have been estimated for each of these two proxies of financial development. The panel GMM and the PGM estimator techniques produce similar results for both the models. We find that real GDP per capita, capital flows, trade openness and institutions are positively and significantly associated with the financial development of D-8 countries. These results highlight the significance of level of economic growth, free flow of capital, trade liberalization and institutional quality in the enhancement of financial development. Real interest rate turns out to be an insignificant determinant of financial development which is not surprising considering that interest rates are usually controlled in developing countries. On the basis of the findings of this study it is recommended that stimulating foreign capital flows and trade openness, improving institutions and economic growth will encourage financial development in D-8 countries.

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