Towards a Framework for Examining the Global Economic and Financial Crisis and Its Impact on Education

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I. Introduction

1. This preliminary issues paper examines the ongoing global financial and economic crisis from the point of view of educational policy and planning, especially in the context of Asia-Pacific region. How has the crisis affected the education sector? We are interested in both the short-run impact of the crisis and its long-run incidence on education. It is hoped that the issues identified here will help us move forward, towards developing a framework that will make the relationship between the crisis and its impact on education clear.

2. The issues paper is divided into six sections. Section 1 introduces the subject matter, and section 2 briefly enumerates the impact of the crisis as spelled by the UN Commission of Experts (UN 2009). Section 3 briefly presents our understanding of the education and development nexus in the context of the crisis. Section 4 identifies some channels through which one expects the education sector to be affected by the crisis. Section 5 reviews selected aspects of the sector rather briefly, before concluding observations are made in section 6.

3. As a background, the following issues are noted.

i. During the last two to three years, food, fuel, and finance have been pulverizing world economies, not to mention the environment and climate change. These have not only caused adverse impact on the poor but have also diverted the attention of policymakers to their respective home territories, resulting in a weakened consensus on the broader issues of development.

ii. The 2008 global financial and economic crisis (the 2008 crisis or the crisis) which had a knock-on effect on the real economy includes severe repercussions for various social sectors including education. "Developing countries, which did not cause the global economic and financial crisis, are nonetheless severely affected by it" (UN 2009).

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2 The limited direct involvement of Asia-Pacific can be gauged from the fact that of the total $1.5 trillion in write-downs and credit losses reported worldwide since July 2007, only $39 billion (about 2.7%) comes from Asian financial institutions, the bulk of which is concentrated in Japan and to a lesser extent in the PRC (ADB 2009, 61).
iii. There is an ongoing debate as to “who dunnit?”. Was it a one-time blip that required only trillions of dollars to restore capital adequacy for banks, or was it a systemic breakdown that had been in the making over the last couple of decades and was waiting to happen eventually? It will take some time before the debate is settled (Johnson 2009). However, we feel that it was a systemic breakdown and that its ripple effects will be felt through for a long time. We also expect many changes encompassing various sectors, including the education sector, to follow in its wake (although these may not be easy to discern in a simple and incontrovertible fashion).  

iv. Apart from the suffering and postponement of poverty alleviation for millions of the poor, the crisis has also some implications for medium-to-long-term development praxis because of the following: (i) a breakdown of consensus in the market’s self-governing ability and efficiency; and (ii) a lack of consensus on matters of global trade, finance, and international governance. These will also have some impact on how the globalization unfolds in future. Put rhetorically, development as a faith is threatened, when all along we were musing that we had arrived at the end of history (Rist 2002; Fukuyama 1992)!

v. The current situation renders the developing world vulnerable to regressive policies by vested groups or ideologues, from within the countries or outside. There are many who would like to use the excuse of the crisis to press for a revisionist position.

II. The Global Financial and Economic Crisis

4. The UN established a Commission of Experts to examine the world financial and economic crisis and its impact under the chair of Professor Joseph Stiglitz. The Conference on the World Financial and Economic Crisis and Its Impact on Development in June 2009 noted the following:

The crisis has produced or exacerbated serious, wide-ranging yet differentiated impacts across the globe. Since the crisis began, many States have reported negative impacts, which vary by country, region, level of development and severity…

Impacts of the crisis  

5. The Conference outcome documents listed about 16 different types of impacts. To simplify the presentation and suit the purpose at hand, we regroup these in the following two categories.

Financial impacts

- Negative effects on balance of payments
- Dwindling levels of foreign direct investment
- Large and volatile movements in exchange rates

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3 Education here is used in its broad sense to include training.
4 ADB (2009) notes: “The synchronized recession in advanced economies led to a collapse in external demand across the region, with all economies suffering double-digit declines in exports. The worst-hit economies generally were those most reliant on international markets.”
• Growing budget deficits, falling tax revenues, and a reduction in fiscal space
• Declining remittances to developing countries
• Massive reversal of private capital inflows
• Reduced access to credit and trade financing
• Reduced public confidence in financial institutions

Real sector impacts

• Rapid increases in unemployment, poverty and hunger
• Deceleration of growth, economic contraction
• Negative effects on trade balances
• Contraction of world trade
• Increased volatility and falling prices for primary commodities
• Sharply reduced revenues from tourism
• Reduced ability to maintain social safety nets and provide other social services
• Increased infant and maternal mortality
• Collapse of housing markets

6. Further, the Commission of Experts observes that the crisis will reduce the ability to provide social services, such as health and education. We discuss below some of the above-mentioned aspects that are relevant to education in two different levels, i.e., international and national. Before proceeding further, however, we take note of some features of the education-development nexus that will illuminate our subsequent discussion.

III. The Education and Development Nexus

7. Regarding this most important underlying relationship between education and development, the following need to be kept in view.

i. The 2008 crisis has been so severe and its impact so pervasive that no aspects of development policy and practice are likely to evade its fall-out. As the nexus between education and development is fundamental to the contemporary model of development, the crisis is likely to affect their relationship in multiple ways.

ii. The generic education and development linkage (through socialization, skills, information, and knowledge management) and the growing primacy of information and knowledge components in products and commodities (Brown and Duguid, 2000) has been fuelling the demand for education and have kept the earning differential premiums intact despite growth in educated personnel.

5 We believe that much of the education development took place to assist in the process of industrialization. See Phillip and Lauder (2001): "In Britain, H.G. Wells referred to the 1870 Foster Education Act as one designed to 'educate' the lower classes for employment on lower class lines, and with specially trained, inferior teachers." See further, "The demand for the complex and varied skills required by industrial societies could not be satisfied by restricting education to middle-class men....the need to provide a suitably trained and motivated labor force has proved a powerful argument for removing education barriers to working class mobility, alongside the demand for social justice" (p.60). See also: "The mid-century development of education was therefore premised on a set of rules, procedures and practices which conformed to the principles of 'factory' organization." (p.64). It is not that one denies the other, more noble aims of education; but that those are not pertinent to the limited objective of this paper.
iii. The growing poverty and increasing inequities are likely to affect the “school readiness” of pupils, especially those from the poorer segments of society, unskilled and un-organized as they are.

iv. The impact is expected to be more serious as education policies in many countries have now become market-oriented, and segments of education have been privatized in several instances. In some countries, this is likely to reopen the debate on the role of the private sector or the return of the government; or, more generally, on the nature of the public-private partnership.

v. Although we identify below different channels through which the crisis is and will be impacting education in the short term, in the long-run, it is through the “…adverse impact on development” (UN 2009) that we consider to be the important channel for real and substantive change. The UN Conference describes the impact of the crisis to be “…calamitous human and development consequences” and it identifies ” the reduction in access to education”, specifically.

vi. The key message is that although there are many short-run effects of the crisis (mostly working through financing channels) which are likely to impact education adversely, of utmost concern to long-term education policy and planning are the changes in the basic relationship between education and development. A phase of globalization that began with the post-war period has come to an end. Developing a new role for education policy and planning amidst altered conditions is not only going to take time, effort and resources, but also entails some uncertainty for the poorer regions of the world as the issues involved are part of the globalization in general.

vii. The studies that focus only on the budgetary or financial aspects of this relationship are in danger of losing sight of the full impact because of the structural shifts in the education-development nexus and their implications for education policy and planning. In other words, while education financing is an important channel, it is not the only impact of the crisis on education. Changes in the medium to long-term are going to be equally important—especially changes in the concept of education as a product; technology through which knowledge transmission and skill inculcation are carried out; organizations through which education is produced, controlled and certified; and the way the burden of education is shared among householders, employers, and the government.

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6 “The introduction of markets in education was, therefore, consistent with the precepts of primitive capitalism. Education was not considered a humanizing force for social progress, but merely a necessary supply-side factor in the cause of wealth creation.” (Phillip and Lauder 2001, 134)

7 To the extent that this relationship between education and development is itself not mechanical and straightforward, it makes the task of tracing the impact of the crisis on education quite a challenge.

8 Regular ministries of education in developing countries are more likely to be engaged in the routine provisioning of resources, budgeting and house-keeping functions rather than seizing upon the structural shifts (viz., product, technology, organization and financing) that are likely to be thrust upon them in the wake of the crisis. Global and regional multilateral financial and technical organizations are better suited to identify and delineate these long-term changes. UNESCO along with its development partners is clearly well placed to play a pioneering role in this context.
IV. Impact on Education: Multiple Channels

8. Education and development have numerous links. We single out only a few below.\(^9\)

i. In this section, we delve a bit deeper and try to assess how different channels have affected different aspects of education. We focus on certain flows and decision-making entities to trace the nature and magnitude of their impact on education. We briefly describe the impact at the national or international level; or government, employer and household levels; or by sectors, e.g., trade, banking and credit, etc.

ii. One can also examine these according to levels of education, i.e., their impact on basic education, secondary schooling, vocational and technical education, or post-secondary education. Further, under each of these categories, one can focus on the short or long run (an education level-resource matrix).

iii. In the absence of empirical data in this preliminary note, the present understanding is discussed in the form of either an a priori argument or the expected impact, along with some anecdotal evidence, wherever available.

A. International channels — Finance

i. There is a decline in foreign direct investment (FDI) in many developing countries largely because of the home bias of investments and balance sheet reasons (UNCTAD 2009). This is likely to slow down potential growth in the medium to long run.

ii. The limited availability of reserve currency is a highly debilitating credit constraint on developing countries. It impinges upon the immediate and could upset ongoing development plans with severe implications for the future.

iii. Exchange rate volatility leads to enhanced risk and uncertainty in economic transactions, particularly trade; it especially upsets ongoing transactions for which the payments are outstanding, or are to be received. In other words, transactions in the pipeline become risky and costlier.\(^{10}\)

iv. During the last decade, remittances have emerged to be an important source of inward financial flows. In Asia-Pacific, their magnitude now exceeds ODA, with India, Philippines, Sri Lanka as the leading recipients. However, the crisis is expected to dampen the flow of remittances, with a decline of 7 to 9 percent estimated in 2009-2010 (Ratha et. al., 2009). Education has been a major beneficiary of these home-bound resources especially through the household channel. It is likely to be affected in the short run.

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\(^9\) The IIEP's newsletter (IIEP 2009) discusses the relationship between education and the economic crisis, and includes contributions from (in alphabetical order) Bray, Burnett, Fredriksen, Kitaev, Morduchowicz, Oulai, Rose, Seck, Tilak, and Varghese.

\(^{10}\) On the role of exchange rates in creating and destroying jobs in the context of international trade, see (Klein, Schuh and Triest 2003).
v. Education is also likely to be adversely affected through the enhanced uncertainty with regard to the availability of overseas development assistance (ODA). Although in many countries the share of education in ODA is a small component, it nonetheless plays an important role, especially for certain targeted groups. It serves as a safety network, and is often a catalyst for other matching financial resources to follow from other sources.\footnote{11}{A UNICEF sponsored paper by Mok (2009) examines the impact of the 2008 crisis on education in East Asia, in detail. Available on the web. See also Mok (2006).}

B. International channels — Real

i. Demand for education is likely to be affected by the slowing down of migration. Migration is known to be skill-selective, and most of the advanced economies are net importers of educated personnel. The slowing down of advanced economies is likely to reduce this demand for graduates, a development that is expected to have a significant impact on the countries of origin and their educational institutions. It is also likely to impact the medium to long-term growth prospects of education and to increase unemployment in the sources of migration in the short-run.

ii. The slowing down or contraction of international trade has caused the demand for exports to fall drastically. This in turn is eroding employment opportunities and is lowering the demand for knowledge and skills from the export sectors. Given the industrial production network linkages, export markets have widespread backward links within and across Asia-Pacific economies, and, as such, the demand for skilled workers is likely to be softened throughout the region.\footnote{12}{On the linkages between international trade and jobs, see Kletzer (2002). See also a diagram showing intra-regional production networks (ADB 2009).}

C. National level channels — Finance

9. The crisis literally caught most national economies unprepared. Many Asian economies had posted high growth rates in the run up to 2007. Till the Lehman bankruptcy, some policymakers were also a bit complacent in light of the de-coupling hypothesis. Therefore, the shortfalls economic data in the fourth quarter of 2008 and the first quarter of 2009 came as a rude shock. Most countries were not expecting the US subprime crisis, or the banking crisis to spill over to home shores, until it actually appeared largely through the international channels mentioned above. In Asia-Pacific the duration of the downturn was limited and by the second quarter of 2009, the “green shoots” started appearing in the region.\footnote{13}{This led ADB to announce a “V” shaped recovery for Asia-Pacific region on 23 July 2009 (ADB 2009), although downside risks remain and not everyone is so enthusiastic about the prospects.}

10. In Asia the countries that were more deeply engaged in the international economy were affected more adversely, i.e., Singapore, Malaysia and Korea (also Japan, and Taipei, China); whereas large economies like China and India, which also suffered heavily, continued to register positive growth although with significant declines in growth rates (China from an annual growth rate of about 9.5 percent down to between 6.5 and 7 percent and India from above 9 percent to about 6 percent). This decline came on the heels of the staggering prices of fuel, and
prior to that, of food. In this sense, millions of people in these two heavily populated economies were facing a series of shocks.

(i) Investment and capital markets

11. It has been noted above that due to the home bias of investment, FDI declined and, more importantly, the market sentiment turned negative. This contributed to the decline in the stock markets, as well as to severe declines in the pension funds and trust funds of foundations, including those of many educational institutions.

12. It is expected that there will be a slowing down in the expansion of the education sector due to economic uncertainties. For example, the government in India earlier announced major plans for an ambitious expansion of higher education in 2007 on a scale that had not been seen since the mid-1950s. However, the change in the economic environment is likely to force a re-appraisal of the situation, if not in the size of the expansion, and more certainly in the pace of the expansion. Likewise, major investments in educational development in the People’s Republic of China, Korea, Singapore, and Malaysia are likely to have a re-appraisal, including an increase in allocations to education out of the stimulation packages in some cases.\(^{14}\)

(ii) Fiscal space

13. Stimulus packages to keep the economy going and to bolster welfare services have exhausted headroom for mobilizing public finances for social services. This is likely to affect public finances adversely in the medium term. The public finance situation has also worsened due to the reduced collection of revenues on account of reduced exports and slower growth. These have led to "a serious and enduring deterioration in public finances" of many Asian economies (IMF 2009). In the medium term, the shrinking fiscal space is likely to thwart appetites for spending more on social services, including education.\(^{15}\)

(iii) Banking and credit.

14. The freezing of inter-bank transactions and the melting down of credit markets at the peak of the crisis were the least expected developments. Their severity and magnitude astounded even the most astute bankers and finance professionals. Further, developing economies did not foresee that when banks in Western economies were under pressure, they would recall their resources back to beef-up their books at home. This led to a severe credit crunch. Combined with the FDI contraction mentioned above, the credit contraction snowballed into the shortage of funds for trade, SMEs, and other commercial enterprises. This, in turn, morphed into a widespread economic and social crisis in developing economies. The worsening banking and credit market conditions are likely to impact on the willingness of banks to lend for education.

\(^{15}\) The government of India has announced an across the board cutting of non-development expenditure by about 10 percent for the remaining part of the current year.
D. National level channels — Real sectors

(i) The labor market and employment.

15. Labor and employment make up the main channel that influences the demand for knowledge and skills, and in the medium to long run, also the supply of educated personnel. Within this category, two influences are likely to be prominent upfront: one is associated with the slowing down of economies, while the other is related to the demand for knowledge and skills for supporting the domestic export sectors.

16. The Asian employment GDP elasticity in the late 1990s and early 2000 is in the range of 0.3. Thus for every 1 percent decline in GDP, employment declines by 0.3 percent. Employment elasticity estimates are higher for the services sector, which is more significantly affected by the crisis. Hence, the impact on unemployment is going to be much larger in this sector, to which the educated workforce is mostly deployed.

17. For example, the slowing down of the information and communication technology (ICT) sector in India where it is an approximately $60 billion industry (8-10% of GDP) resulted in exports falling from a 16-percent annual growth in 2008-2009, to an estimated 4 to 7 percent growth in 2009-2010. The ICT sector is a highly sensitive industry for the employment of the educated. Wage levels had been rising and employment markets were very tight in the last few years prior to the crisis. Turbulence in the employment market is threatening to erode the country’s low-cost advantage. A slowdown in the hiring of new employees is likely to dampen enrolments in ICT training institutions that mostly belong to the private sector, whereas preparatory educational programs are financed by private households.

18. Anne Krueger (2009) in the recent ABCDE conference in Seoul in June 2009 summed up the prospects of developing countries where labor and employment markets are concerned:

> With higher real interest rates and more expensive capital, efficient use of unskilled labor, and measures to improve the productivity of labor will be of utmost importance. This means health and education, as well as technical training.

> …those countries that make the efforts to use their labor forces more productively may find themselves greatly advantaged as industrial countries age and capital becomes scarcer.

To be able to cope better with the adverse effects of the crisis, developing countries have to get their act together again and step up to ensure more productive use of both their skilled and unskilled labor.

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16 Employment elasticity of GDP in East Asia is 0.31, but with East Asia exclusive of China, it is 0.15.
(ii) **Households**

19. Households are the receptacles of all the channels mentioned above; they play a crucial role in determining the demand and supply of education personnel. Although estimates vary (according to level of education, type of educational program and the country), it is understood that households bear anything between 20 and 40 percent of the total cost for educating their wards. The crisis adversely impacts this ability to finance education and makes it difficult to commit large chunky investments over a long period, especially when parents themselves are losing jobs or are adjusting to lower earnings. Unlike “smoothening of consumption” of everyday goods and services, it is not easy to resume education once a break has taken place. One cannot simply buy it off-the-shelf. Interest, ability and effort are required for ensuring a successful outcome.

20. In relation to the 1997 Asian economic crisis, Thomas et al., (2004) studied the impact of the 1997 Asian economic crisis on education in Indonesia based on survey data involving Indonesian households. They undertook a rigorous and thorough analysis of the impact and found that while the rich may not be affected much as they have the ability to cushion the impact of the crisis, the poor have to review and make serious adjustments in their commitment to education. Thomas et al. (2004, 53) summarize their findings as follows.

> On average, household spending on education declined, most dramatically among the poorest households. Spending reductions were particularly marked in poor households with more young children, while there was a tendency to protect education spending in poor households with more older children. The evidence on school enrollments mirrors these findings. Poor households apparently sought to protect investments in the schooling of older children at the expense of the education of younger children.”

21. Lastly, the education expenditure by households is not a monolithic block but comprises of different items with relative weights and preferences, viz., transport, material, textbooks, accommodation, examination, instruments, entrance, tuition and teacher salaries (Hinsz, Meyers and Patel 2008). The impact of the crisis is likely to differ across items.

V. **Education sector**

22. Many influences of the crisis, whether through public finance, private entrepreneurs, or household financing, come to bear upon education through its production function, i.e., the way inputs are utilized to produce educational outputs. It determines the impact on outputs, their demand and supply, and the earnings that flow from it. Earning capacity\(^{17}\) (EC), as a yield of human capital, serves as the conduit between the employment market and the education output (Haveman 2003).

23. To the extent various levels of education have a different education production function, the crisis is likely to have varying impacts by level of education. For example, primary education may be affected only in those countries that are dependent on the ODA for the purpose.

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\(^{17}\) Haveman et al. (2003) used earning capacity (EC) as the focal point for understanding the growth and utilization of human capital in the US during the period 1975-2000.
Alternatively, the financial squeeze may reduce all non-teaching expenses, and end up paying only teachers’ salaries, resulting in a knock-on effect on the quality of education in the medium to long-term. Such erosions in the quality may then show up in the subsequent levels of schooling. In contrast, as Thomas et al. (2004) found that households might continue with the secondary or higher level schooling despite the crisis so as to protect their past investments.

24. Technical, vocational and professional courses may be more responsive in anticipating changes in the employment market so that they can position their graduates in advantageous areas (yielding quicker jobs or wage premiums), although any decline in the quality of foundation courses is likely to have a debilitating effect.

25. Likewise, the responses of tertiary education, R&D centers and training subsector vary depending on the type of skills and knowledge constraints in particular employment markets and their links with the sources of the financial and economic crisis. For example, given the fuel spike, the interest in alternative sources of energy has suddenly increased to new heights. As a result, the enrolment in related specialized courses has increased. A large number of professionals are changing professions mid-course and are re-tooling themselves with the help of related educational and training courses.

A. Implications for Education

26. Summing up the likely impact of the crisis on the education sector as a whole, one should note the following. As a result of the crisis, the expansion of the access to education is likely to slow down as hundreds of millions will continue to live below poverty lines. Even for those just above the poverty line, the going will be tough. They will have to strive hard to keep their wards fed, clothed, and in school.

27. For the middle class families who are usually keen to secure better quality education for their wards, it may not be easy to top up or supplement the state-provided education as demand for resources from other competing services especially food and fuel within the household rises. If so, the relative position of education as an element of the household budget for the middle classes may not be much different from that of the poor.

28. Those households that are able to invest in quality education (with high credentials) will find that it pays back amply. In this sense, the crisis would have further polarized the educational clientele. Thus, one expects educational inequities to widen further, unless special measures are taken to make the education system more inclusive. This is particularly true for girls education in many countries of Asia-Pacific region. Likewise, agricultural and rural sectors may not benefit due to inappropriate curriculum and schooling system. The latter is especially a cause of concern given the massive potential of scientific and modern agriculture for improvements in water and environment resources.

29. The growing privatization of education is likely to face some questioning at the policy level, and to experience some resistance to expansion, depending upon how different strata of society gain or lose. Responding to the higher prices of food, fuel, real estate, among others, private education is likely to become costlier. Meanwhile, revenue from trusts or foundations for
educational institutions is likely to be lower. Governments are also likely to find it difficult to extend any subsidies. The total impact of all these factors may be a slower expansion of private education in future. Further, with the return of regulation, governments are likely to be playing their hands more actively in any public-private partnership.

B. Strategic planning for the future of education

30. Traditional education policy and planning started with a technology-determined engineering approach of fixed coefficients (also called the manpower planning approach). It gradually gave way to the social demand approach and a broader evaluation of educational outcomes through cost-benefit analysis under the general framework of human capital. This framework continues to be generally valid although much more empirical research needs to be undertaken especially in, and by developing countries themselves. This is important for strengthening policy making and ensuring better planning in the sector, along with a closer oversight and supervision of government.¹⁸

31. Amidst globalization in the last two decades, education development quietly took place in the wake of expanding trade and within the rapidly growing information technology context. It seems that considering its current phase, education will have to become more productive to be able to keep parity with costlier capital (Krueger 2009). It will be a challenge to increase both the internal and external efficiency of education.

Investments in health, education, and more generally worker productivity have long gestation periods. If the authorities wait, opportunities may be lost.

Internal efficiency, perhaps, has remained somewhat non-responsive during the recent decades, notwithstanding the radical changes on account of ICT and the Internet. This is possibly the area with maximum pay-off for education policy and planning. The crisis provides “…an important opportunity for a meaningful change…” in the area.

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¹⁸ Bray (2008) identifies some important strategic issues for future education policy and planning.


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29 Aug 2009/Revised 10 Sep 2009