What is the role of insurance in economic development?

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What role does insurance play in economic development? Considerable attention has been devoted to evaluating the relationship between economic growth and financial market deepening. Most of what we have learned relates to banking systems and securities markets – with insurance receiving only a passing mention. Yet, while insurance, banking, and securities markets are closely related, insurance fulfills somewhat different economic functions than do other financial services, and in turn requires particular conditions to flourish and to make a full economic contribution.

Fortunately, in the past few years, several interesting lines of research have begun to map the specific contributions of insurance to the economic growth process as well as to the well-being of the poor. The evidence suggests that insurance contributes materially to economic growth by improving the investment climate and promoting a more efficient mix of activities than would be undertaken in the absence of risk management instruments. This contribution is magnified by the complementary development of banking and other financial systems.

Empirical studies suggest that nonlife insurance contributes to growth in countries at many different levels of development. Life insurance makes a substantial contribution to growth mostly in wealthier countries, since life insurance is typically a smaller part of the total insurance market in low income countries. The relationship between per capita income levels and insurance penetration is also strong in the reverse direction – with rising income a strong driver of life insurance coverage. However, it is difficult to disentangle whether lower insurance consumption at lower income levels reflects reduced demand for life insurance products or constraints on the supply side associated with weak regulatory and supervisory environments and high costs of insurance provision.

Of course, even if the data did not support a strong causal role for insurance as an engine of overall aggregate growth, there might be a strong case for insuring the poor on social welfare grounds that those at or below the poverty line are particularly vulnerable to catastrophic shocks to income and consumption. And indeed, it appears that the gap between the potential social value of insurance and the transactions costs of provision might be unusually wide for the poorest segment of society, which explains the growing interest in micro-insurance on the part of non governmental organizations and philanthropic foundations, some of whom are partnering with commercial providers.

Contributions of Insurance to Growth and Development

Insurance serves a number of valuable economic functions that are largely distinct from other types of financial intermediaries. In order to highlight specifically the unique attributes of insurance, it is worth focusing on those services that are not provided by other financial services providers, excluding for instance the contractual savings features of whole or universal life products.

The indemnification and risk pooling properties of insurance facilitate commercial transactions and the provision of credit by mitigating losses as well as the measurement and management of non diversifiable risk more generally. Typically insurance contracts involve small periodic payments in return for protection against uncertain, but potentially severe losses. Among other things, this income smoothing effect helps to avoid excessive and costly bankruptcies and facilitates lending to businesses. Most fundamentally, the availability of insurance enables risk averse individuals and entrepreneurs to undertake higher risk, higher return activities than they would do in the absence of insurance, promoting higher productivity and growth.
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The management of risk is a fundamental aspect of entrepreneurial activity. Entrepreneurs manage the risk of accidental loss by weighing the costs and benefits of each alternative. In a structured risk management process, this involves: (1) identifying the exposures to accidental loss; (2) evaluating alternative techniques for treating each loss exposure; (3) choosing the best alternative; and (4) monitoring the results to refine the choices. Those who do not apply a structured process still make decisions about risk, although sometimes by default rather than design. The scope of an economy’s insurance market affects both the range of available alternatives and the quality of information to support decisions.

For example, a manufacturer might produce only for the local market, forgoing more lucrative opportunities in distant markets in order to avoid the risk of losing goods in shipment. Transport insurance can mitigate this loss exposure and enable the manufacturer to expand. Similarly, to avoid the risk of total loss from drought, a commercial farmer may keep half of his seed in reserve. Crop insurance can protect against drought and permit all of the seed to be planted for a smaller premium than the cost of holding half in reserve. Thus public policies that encourage insurance operations improve the economy’s productivity by broadening the range of investments.

Insurers also contribute specialized expertise in the identification and measurement of risk. This expertise enables them to accept carefully specified risks at lower prices than non-specialists. They also have an incentive to collect and analyze information about loss exposures, since the more precisely they measure the cost of risk, the more they can expand. As a result, the insurance market generates price signals to the entire economy, helping to allocate resources to more productive uses.

Insurers also have an incentive to control losses, which is a significant social benefit. By offering discounts for seat belts, smoke detectors, or other measures that reduce the frequency or severity of losses, they lower their eventual claims costs, in the process saving lives and reducing injuries.

On the investment side, due to the long term nature of their liabilities, sizeable reserves, and predictable premiums, life insurance providers can serve an important function as institutional investors providing capital to infrastructure and other long term investments as well as professional oversight to these investments. Of course, these benefits are fully realized only in markets where insurance providers invest a substantial portion of their portfolios domestically.

The net result of well functioning insurance markets should be better pricing of risk, greater efficiency in the overall allocation of capital and mix of economic activities, and higher productivity. Importantly, these unique functions of insurance should be complementary to banking and financial sector deepening more broadly. For instance, insurance facilitates credit transactions such as the purchase of homes and cars and business operations, while depending in turn on well functioning payment systems and robust investment opportunities.
Measured Contribution of Insurance to Growth
Given the multiple potential benefits of a vibrant insurance sector, how much of a contribution does insurance make in practice? While still sparse, the research points to several relatively robust inferences:

1: Insurance Contributes Positively to Economic Growth.
The deepening of insurance markets makes a positive contribution to economic growth. While life insurance is causally linked to growth only in higher income economies, nonlife insurance makes a positive contribution in both developing and higher income economies. Some research suggests that the positive contribution of life insurance to growth is primarily through the channel of financial intermediation and long term investments. However, it is important to note that these studies do not address the important contributions to individual and social welfare from risk management.

2: Strong Complementarity between Insurance and Banking.
Insurance and banking system deepening appear to play complementary roles in the growth process. Although insurance and banking separately each make positive contributions to growth, their individual contributions are greater when both are present. There is also some evidence that the development of insurance markets contributes to the health of securities markets.

As suggested above, there are many reasons why this complementary relationship might hold, including the likelihood that the presence of property casualty insurance avoids inefficiently high levels of bankruptcy and helps to facilitate credit transactions for houses, consumer durables, and small- and medium-sized businesses that banks typically finance.

Drivers of Insurance Coverage
Separate evidence that a growing presence of life insurance providers and pension funds is associated with more efficient banks suggests that they promote some capital market discipline on the investment side that is also complementary.

1: Rising Incomes, Moderate Inflation, and Financial Deepening are Key Drivers.
Growth in insurance coverage is strongly associated with rising incomes, the development of an increasingly sophisticated banking sector, and low or moderate levels of inflation. The strong contribution of rising incomes to greater insurance coverage might be attributable to demand factors (rising demand for coverage as individuals become wealthier), supply factors (it becomes more cost-effective to provide insurance as the economy expands, providing both a stronger institutional environment and greater returns relative to transactions cost), or a combination.

The overall institutional environment plays an important role, in terms of political stability and openness as well as government effectiveness, rule of law, and control of corruption. Religious factors also play a role, with insurance consumption inversely correlated to the share of the population that is Islamic.
A number of factors that might be assumed to be strong drivers of insurance market growth appear much less significant in practice, including demographic factors, such as the share of the population that is approaching or at retirement relative to the share that is young, and the educational level of the population. Notably, social provision of insurance, such as social security and government health insurance, appears to grow in tandem with the provision of private insurance perhaps because both are associated with increasing incomes – rather than acting as substitutes as some have conjectured. In addition, even though urbanization might be expected to lead to growth in insurance coverage due to the associated separation from traditional informal insurance practices prevalent in rural settings, urbanization does not appear to be a significant driver.

2: Variation in Insurance Coverage. Although the key drivers noted above are relatively robust in explaining insurance market coverage, nonetheless there is substantial variation in insurance coverage among economies that cannot be fully explained by these factors. This suggests some idiosyncratic factors may be at work.

Observers have noted an S-curve relationship between per capita income and insurance penetration: insurance penetration is moderately positively correlated with per capita income within the group of low income countries and the same is true for the highest income countries. However, within the group of middle income countries, insurance penetration is strongly positively correlated with per capita income. This S-curve is somewhat misleading however, since it compares countries at different levels of per capita income, but does not predict how insurance penetration will rise as an individual country becomes wealthier over time.

Indeed, even after controlling for income, there is substantial heterogeneity in insurance coverage between regions (with Latin America and the Middle East lagging behind) and even among different countries within regions (a handful of countries in Latin America have much deeper insurance markets than the remainder). Analysis of the heterogeneity even within the group of relatively wealthy OECD member countries leads some analysts to conclude that a full understanding of the relationship between insurance and growth requires some analysis of cultural and institutional characteristics within individual countries. At minimum, the high degree of heterogeneity might suggest that attitudes towards insurance and risk must be taken into account in the development of country and regional insurance markets. Related, it suggests an important role for industry-wide initiatives on consumer education and self-regulation in addition to the development of trustworthy regulatory and supervisory frameworks as the globalization of insurance markets proceeds.

Micro-Insurance
The contribution of insurance to an economy’s growth and efficiency is not the only entry point into its role in development. The contribution of insurance to poverty alleviation and the welfare of the poor is also potentially of considerable importance, although the quantitative evidence on this point is not on very firm grounding. Nonetheless, case studies and other qualitative evidence make a persuasive case that the potential social value of so-called micro-insurance provision to poor households and small-scale entrepreneurs warrants a great deal more experimentation with business models and products to develop scaleable approaches that combine commercial and philanthropic elements.

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As noted above, patterns of insurance coverage suggest a positive correlation with income – at least up to a point where the value of insurance begins to diminish relative to the value of overall household assets. But this does not tell us anything about the potential social value of insurance provision at lower levels of income – only that poor consumers either do not or cannot purchase insurance at currently prevailing prices and availability. Moreover, insurance market development faces many special informational challenges that have been extensively documented in economic research even in wealthier countries. Put simply, insurance is likely to be relatively more expensive – even prohibitively so – for low income households and small-scale entrepreneurs because of the high informational problems and transactions costs relative to the size of the risk to be insured. As a result, most types of insurance are simply not available to the vast majority of the world’s poorer citizens.

In the absence of risk pooling mechanisms, plunges in incomes due to death, disability, and adverse agricultural outcomes often translate into substantial decreases in consumption and investment that can permanently set back a poor family’s livelihoods and prospects. When drought or floods lead to low agricultural yields, critical health interventions may be delayed, education of younger members of a household put on hold indefinitely, and land, livestock or equipment permanently forfeited. Due to the catastrophic consequence of such losses, there is extensive evidence that in the absence of formal insurance poor households and communities attempt to ‘self-insure’ through a combination of building assets and diversifying sources of income. The result most likely is investment in a set of lower risk but also lower return activities – and even this degree of self-insurance is highly incomplete.

There are also a variety of mechanisms that have emerged at the community level, such as community pooling of informal insurance contributions to cover burial costs. Community-based insurance mechanisms surmount the problems of transactions costs and lack of legally enforceable contracts through personal relationships and piggybacking on traditional small-scale financial collection mechanisms, similar to the early stages of micro-credit. However, they offer only feeble protection in the face of community-wide, covariate shocks, since they do not typically pool risk across broader populations and are limited in the types of products they can provide.

For micro entrepreneurs and farmers, the net result can be a significant drag on overall economic performance as they choose to invest in activities that might offer the best risk-return profile from an individual point of view but are suboptimal from an economy-wide point of view where a higher returning but riskier set of investments might lead to better aggregate outcomes.

High transactions costs are the main impediment standing in the way of a systematic shift from informal to formal mechanisms for managing and pooling risk for poorer households and small entrepreneurs. As such, the emerging field of micro-insurance faces many of the same challenges faced by micro-credit two decades ago in developing creative mechanisms for reducing or subsidizing transactions costs. Indeed, micro-credit institutions are among the first to venture into micro-insurance products, and their most popular initial insurance product offering was ‘credit-life’ insurance to pay off any debts associated with outstanding micro-credit loans in the event of death. As this field expands, it might follow a trajectory similar to that of micro-finance, perhaps starting with NGO providers funded on a philanthropic basis, but rapidly
expanding to include commercial partners as financial intermediaries as scaleable business models emerge.

In parallel, in some countries the public sector is taking a greater interest in the provision of social insurance to poorer populations – through subsidized public insurance schemes for health, natural disasters, or weather-related crop insurance. Government mandates for compulsory insurance also expand the covered population although the difficulty of achieving risk-based pricing can lead to market distortions.

1: Household Insurance:
Micro-finance providers and other community-based financial intermediaries have begun to diversify into insurance products. In Uganda, 2 million people have purchased life insurance bundled with savings and micro-credit. Burial insurance is growing rapidly in other areas, and there are some experiments with property insurance such as for livestock and dwellings.

2: Natural Disasters, Weather, and Crop Insurance
There should be enormous potential for natural disaster and weather insurance to improve the performance of lower income economies, which tend to be more vulnerable to high volatility in incomes due to commodity price fluctuations and natural disasters due to poor building codes and infrastructure. Current investments in new products and innovations in weather and natural disaster insurance should be followed closely, as it is anticipated that climate change will exacerbate the incidence of weather patterns and natural disasters in many poor areas.

In recent years, the World Bank and other donors have been involved in experiments in countries such as Turkey and Mexico that provide earthquake risk insurance financed through a combination of reinsurance and the capital markets. In areas of Asia and Africa, there is growing interest in weather derivatives to insure against weather-associated agricultural losses. These are designed to sidestep the traditional incentive (moral hazard) problems associated with crop insurance by using independent measurements of weather outcomes such as rainfall rather than crop yields.

3: Health Insurance
As with the wealthier economies, the development of health insurance markets in developing economies depends on the composition of health delivery providers – whether private or public – and the government’s involvement in health insurance provision. However, there is a strong tendency in poorer economies for households to bear responsibility for paying a much higher proportion of overall health costs out of pocket than in richer economies, which leads to underinvestment in health services (particularly on the preventive side) and vulnerability to health-related consumption shocks. Thus, a strong case can be made for improving health outcomes in poor countries through a varied combination of public and private insurance provision depending on the institutional setting. Indeed, countries such as Mexico and Colombia have undertaken interesting reforms in this area in recent years, and this is likely to be an area of strong growth.

4: Small-Scale Entrepreneurs
The economic contribution of small enterprises to middle- and high-income economies is well-known. However, in many poor economies, start-ups and small-scale enterprise fall short of their potential due to a variety of barriers, including access to capital. As attention to these barriers grows, it is critical to put insurance high on the list. While the risk appetite of large corporations can be debated, small scale entrepreneurs whose household wealth is tied up in their
business enterprises are undoubtedly preoccupied with managing risk. In the absence of risk management tools provided by formal insurance, there will be a tendency to under invest in higher risk, higher return activities, thus diminishing the potential contribution of the critical small and medium sized enterprise sector to employment, investment, and growth overall.

In sum, extending accessible insurance products to poor households and small scale entrepreneurs should be a core part of the agenda of democratizing access to financial assets. When successful programs are taken to scale, it will not only add measurably to social welfare but also hold the promise of generating a more productive and higher growth mix of activities and investments – with a payoff perhaps greater than micro-credit.

Globalization of Insurance markets
Although the evidence suggests that insurance market deepening should be a priority in the financial sector strategies of developing countries, awareness of the role of insurance lags behind that of banking and capital markets. For these reasons, it is important to raise the visibility of this sector and to clarify what unique regulatory provisions might be needed to enable insurance market development alongside other facets of financial deepening. For many countries, a good starting point would be to include analysis and recommendations specifically for insurance in financial sector assessments.12

1: Institutional Foundations for Insurance Market Development
The development of robust insurance markets generally requires many of the same foundations as for banking and financial market deepening: reasonable macroeconomic and political stability, clear property rights, enforceability of contracts, and safeguards against corruption. However, these are necessary but not sufficient conditions. Insurance market deepening also depends on the scale and growth of related markets, including sales of cars and other consumer durables, residential and commercial mortgage markets, business establishments, disposable income, and commercial and trade transactions, to name a few. Growth in these related markets is critical in order for the nascent insurance industry to reach scale in developing shared infrastructure, underwriting capacity, statistical databases for actuarial purposes, and the associated skills.

A variety of public goods are critical for jump starting and sustaining the growth of domestic insurance markets. These include the collection and sharing of data on a consistent basis, common supervisory principles, for instance on reserves and solvency, and consumer education. Recognizing the critical role of such public goods, several of the multinational development banks, international associations of regulators and supervisors as well as private sector associations are already active in providing technical assistance on all of these dimensions.11

According to an in-depth survey of the factors that have slowed the expansion of insurance markets in Latin America, the region’s insurance professionals view the lack of sufficient education about insurance as the greatest impediment to market development. They also cited lack of confidence in the effectiveness of the judicial system and law enforcement’s failure to collect information about thefts and automobile accidents as key impediments to market development.12

2: Insurance for Different Stages of Economic Development
Although there is broad agreement on the need for adequate regulatory and supervisory frameworks, there is some debate on the content of these frameworks,
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and in particular the extent to which developing countries can or should harmonize their standards to global best practice or seek some intermediate standards. Global best practices relying on disciplined transparency and corporate governance are still largely lacking in many developing countries. For some regions within Africa and Latin America, a strong case can be made for the development of regional standards that are common across groups of neighboring countries or Free Trade Agreement (FTA) partners. Regional harmonization offers many benefits, and it can be a step toward global standards. The International Association of Insurance Supervisors has articulated the Core Principles of Insurance Supervision, but the implementation of those Core Principles has barely begun.

Given the evidence connecting insurance market takeoff to achievement of middle income status, a case can be made that low income economies below this threshold should concentrate limited resources on either specific insurance segments (such as natural disaster risk mitigation) or other sectors. In countries with limited capacity, it makes sense to undertake institutional development sequentially – for instance focusing initially on laws and regulations that are foundational for overall financial sector expansion rather than specific to insurance. In parallel, the growing field of micro-insurance is likely to yield products and business models that contribute to social welfare and small enterprises in low income economies, while establishing broad familiarity with formal insurance and setting the stage for future growth as income rises.

### 3: Trade and Investment Liberalization and Insurance Markets

Expanding cross-border trade and investment will remain key drivers of insurance market growth. Trade fuels insurance market growth both indirectly – through the growing volume of transactions requiring insurance – and directly – by driving privatization and liberalization of insurance markets and the migration of new products across borders.

As global insurance companies press forward on cross-border market liberalization, they would be well-advised to advocate just as actively for building consumer confidence in the regulatory and supervisory infrastructure of emerging insurance markets. Global industry leaders may find their victories short lived if they win major concessions in new markets on insurance market liberalization through WTO and bilateral free trade agreement negotiations, without putting appropriate emphasis on the concurrent development of regulations and prudential supervision as well as industry self-regulation. The hard won market opening can backfire when the actions of a handful of poorly regulated domestic providers undermine consumer trust, leading to adverse reputation effects for all providers that may take years to overcome.

**The Road Ahead**

The evidence suggests there is substantial potential for insurance to make a greater contribution to economic growth and social welfare in many lower and middle income countries. Indeed, industry experts argue that insurance lags behind other financial services in the extent of globalization, providing substantial growth opportunities. The large variation in insurance coverage among countries at similar income levels, strong trend aggregate growth and stability in a large number of lower and middle income economies, and diminishing domestic market concentration in several countries all point to significant growth potential for insurance – with concomitant benefits for productivity, growth, and welfare.
Endnotes


2 Hak Hong Soo, ‘Life Insurance and Economic Growth: Theoretical and Empirical Investigation,’ University of Nebraska, Department of Economics, 1996.

3 There is some contrary evidence on this point. Thus, for instance, Adams et al (2005) find that banking sector growth but not insurance market growth preceded growth in Sweden. While in some specifications life and nonlife insurance do not appear to be significant contributors to growth in the presence of an interaction term with banking, subsequent research such as Ian P. Webb, Martin F. Grace, and Harold D. Skipper, ‘The Effect of Banking and Insurance on the Growth of Capital and Output,’ Center for Risk Management and Insurance Working Paper 02, Georgia State University, 2002, suggests the independent contribution of insurance is robust to the inclusion of banking sector variables, and higher levels of insurance and banking penetration jointly produce a greater effect on growth than their individual contributions combined.


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