



WorkingPapers

**The City in the Global Crisis:
Understanding Impacts and Strengthening the Performance of
Stimulus Packages**

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International Affairs Working Paper 2009-08
November 2009

Paper presented at the Conference, “Beyond the Economic Crisis: Assessing Impact and Defining New Norms for Economic Policy in Latin America”, The Observatory on Latin America, Graduate Program in International Affairs, The New School, November 2-3, 2009

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www.gpia.info

ABSTRACT

Though countries generate more than half their GDP in urban-based economic activities, the G-20 discussions in London and Pittsburgh devoted no recorded attention to urban infrastructure. Policy makers and designers of stimulus packages ignored two fundamental aspects of this crisis: Where the greatest impact of economic contraction are and where demand can be stimulated to generate the largest possible multipliers. This paper argues that while industrialized countries take urban and spatial dimensions of their economies for granted, this perspective is counterproductive for Latin American countries that are the most urbanized among developing countries.

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The City in the Global Crisis:
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Introduction:

The global economic crisis of 2008-2009 by most accounts originated in the financial crisis in the United States which itself arose from the sub-prime mortgage crisis of 2008. This crisis involved the granting of millions of loans to consumers who subsequently were unable to pay their monthly payments. The overleveraging in the housing sector then had major consequences for the balance sheets and liquidity of commercial banks, which in turn resulted in a severe credit squeeze in 2008 and the first half of 2009. The globalization of financial markets over the prior two decades quickly proved to be a source of vulnerability for banks outside of the United States as well. The

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extraordinary growth of global financial assets from US\$12 trillion in 1980 to up to US\$241 trillion in 2007, as estimated by the IMF², was reflected in the wide distribution and deepening of assets across countries. In 2000, only 11 countries had financial assets of more than 350 percent of the GDP, but by 2007 this number had reached 25.³

The spread of the sub-prime crisis through “toxic assets” undermined this wildly over-leveraged financial system, leading up to dramatic events such as the collapse of Lehman Brothers in September 2008. The entire global credit system subsequently froze up, with a consequent reduction in investment, consumption, and demand for goods and services. The demand for goods and services then quickly resulted in a drop in the demand and prices for commodities from their high levels in the first five years of the 21st century. The contraction in national economies has also dramatically reduced public revenue at the national, state, and local levels – less activity reduces earnings and profits and therefore also reduces tax revenue.

What had begun as a problem in largely urban financial markets in the United States had become a global crisis affecting all sectors in all countries. A crisis of capital became a crisis of labor as well. Automakers in Detroit to urban shopkeepers in Buenos Aires, Mexico City, Nairobi, to factory workers in Shanghai to rural farmers in Brazil or Mexico were all no longer able to earn their previous incomes from manufacturing, agriculture, or trade. A financial crisis became an economic crisis and subsequently is also now a public finance crisis.

The impact of the economic crisis that began in the housing market in the United States was transmitted through channels of the real economy in Latin America in the fourth quarter of 2008, with negative impacts on aggregate production, domestic consumption, and exports. Drastic declines in private, export and import demand began

² IMF, Global Financial Stability Report, (Washington: IMF, 2009)

³ Stephanie Blankenburg and Jose Gabriel Palma, “Introduction: the global financial crisis”, Cambridge Journal of Economics, Volume 33, Number 4, pp.531-538

in the third quarter of 2008 and have continued through 2009. Reflecting the global nature of the crisis, seven of the eight largest economies in Latin America experienced full reversals of exports between the fourth quarter of 2008 and the first quarter of 2009 due to rapid reductions in global demand. A double impact on the fiscal space of many Latin American countries is expected in 2010 as a reduction of demand is accompanied with reduced commodity prices. Revised GDP growth estimates indicate that the external shock to the region has dampened the short-term outlook for the region, ending consecutive years of robust growth in LAC.

The global response to this crisis can be characterized as multi-frontal, with many types of measures enacted to protect banking systems and the supply of credit. But the primary measure seems to have been a set of Keynesian measures now known as “stimulus packages”, whether under capitalism or market socialism, whether in the United Kingdom or China, Brazil or Indonesia. These packages of massive public spending and other measures of tax relief and targeted assistance have been widely regarded as the most effective way to stimulate demand and thereby facilitate the resumption of consumption, investment, and growth of employment. This approach was endorsed by the G-20 heads of state meeting in London in April 2009 and was later celebrated by the same group in Pittsburgh in late September 2009 as having contributed to “bringing the world economy back from the brink.”

While many of the consequences of the crisis still remain acute and in some cases appear chronic for developing countries and particular regions within countries, there is little systematic evidence on the role that the planned stimulus packages have played in either reducing the rate of economic contraction or in some cases the resumption of growth. The September 10, 2009 report of the US Council of Economic Advisors on the Economic Impact of the Recovery Package argues that the contraction of the United States economy slowed down in the second and third quarters of 2009 and that in general, across a sample of countries, those countries with larger stimulus packages

have grown at a faster rate.⁴ The Report states that three types of spending in the U.S., in the form of state fiscal relief, assistance to people most affected by the crisis, and tax cuts and other payments, amounting to US\$151 billion of the total package of US\$787 billion, have contributed to job growth as well as GDP growth on the order of 2-3 percent for the second quarter and above 3 percent for the third quarter of 2009. The Report uses a counterfactual analysis to assess the GDP growth of countries, asserting that if no stimulus packages had been adopted, conditions would have been much worse. The authors conclude that these measures have made a significant difference. This upbeat message, however, preceded the unemployment rates announced in early October 2009 that showed unemployment close to 10 percent.

Other studies, discussed below, have now become available that arrive at similarly positive conclusions, but an important issue remains as to the actual cost effectiveness of these packages, particularly in light of their scale, opportunity cost, externalities, and implications for future indebtedness. Clearly in some cases, the stimulus packages have not met policy-makers' expectations, in others they have faced institutional problems, and in some countries other factors beyond their control affected key exports, trade, and domestic production and employment. In most cases, the timing and scale of "recovery" has been somewhat of a mystery, as estimates of multipliers have proven to be highly speculative. Recovery, like beauty, seems to lie in the eye of the beholder.

The lack of clear evidence is reflected in an elaborate and non-stop stream of judgments, with some officials in OECD countries identifying "green shoots" of recovery, and then later ruefully denying them soon, to images of "hope is on the way", or to use of the image "the long climb" by The Economist.⁵ All of this highlights the prescient claims of Joseph Stiglitz and Paul Krugman in late 2008 and early 2009 that the US

⁴ Executive Office of the President, Council of Economic Advisors, Economic Impact of the American Recovery and Reinvestment Act of 2009, First Quarterly Report, September 10, 2009.

⁵ The Economist, "Special Report on the World Economy", October 3, 2009.

stimulus package under discussion at the time was probably too small to make a significant difference, too late to forestall damage to the economy and to avert the worst effects on the unemployed, and overall, badly designed.

This paper examines some of the evidence on the impact of the crisis and some responses to it through the experience of stimulus packages in order to understand the determinants of their effectiveness in actually stimulating demand. Rather than presume to be an exhaustive examination of the stimulus packages, the paper examines these issues through the lens of the spatial distribution of the impacts of the crisis and the spatial allocation of public expenditures.

The argument of the paper is that policy makers and designers of stimulus packages seem to have largely ignored two fundamental aspects of the crisis: first, where are the areas of greatest impact of economic contraction, and where might demand be stimulated so as to generate most rapidly the largest possible multipliers. In so doing, they have proposed and undertaken spending in a less than an optimum targeted fashion, ignoring the spatial configurations of national and local economies and therefore also ignoring how agglomeration economies might be affected by increased levels of public expenditures. In so doing, they forget what the World Bank's 2009 World Development Report asserted: "Place is the most important correlate of a person's welfare."⁶

This statement is rooted in historical studies of development and the growing urbanization of economies. Historically, as an increasing share of the total population of a country's population lives in urban areas, GDP increases.⁷ This is more than an accidental correlation, but rather a clear relationship between the efficiencies and productivity of agglomeration economies and location. Agglomeration when

⁶ World Bank, Reshaping Economic Geography, World Development Report 2009, (Washington: World Bank, 2009)

⁷ Idem.

accompanied by growing density and proximity allows the reduction of costs of production of goods and services and growing consumption by an ever-wealthier urban labor force. The process of value creation itself is a quintessential process of bringing factors of production together in time and space.

Economies of scale generate higher productivity as shown in studies in Brazil, which concluded that productivity increased roughly 1 percent for every 10 percent increase in the number of workers employed in an industry or in a city. This is a very large increase, reflected in the conclusion that by growing from a city of 1,000 workers to one with 10,000 workers, productivity would increase by a factor of 90.⁸ Over time, economic growth at the aggregate level is thus closely associated with the urban percentage of total population. Historically, “it is extremely rare to achieve per capita incomes about US\$10,000 (in purchasing power parity terms) before half of the population lives in the cities.”⁹ All high-income countries are 70-80 percent urbanized.¹⁰

The other important, and rarely recognized fact, is that all countries now generate more than half of their GDP in urban-based economic activities.¹¹ In 109 countries with populations over one million, both urbanization and per capita income growth rose between 1960 and 2003; in the majority of these countries, income per capita grew more rapidly than urbanization.¹² Projections for future economic growth

⁸ Michael Spence, Patricia Clarke Annez, and Robert Buckley, eds. Urbanization and Growth, (Washington: Commission on Growth and Development, 2008), with citation of work of Vernon Henderson in Brazil in 1986 , p.15

⁹ Commission on Growth and Development, The Growth Report: Strategies for Sustained Growth and Inclusive Development, (Washington: The Commission on Growth and Development, 2008), pp.57-58

¹⁰ Spence, Annez, and Buckley, op.cit., p.x

¹¹ Michael A. Cohen, Urban Policy and Economic Development: An Agenda for the 1990s, (Washington: The World Bank, 1991)

¹² Spence, Annez, and Buckley, p.7

in all countries demonstrate that the trend towards greater concentration of economic activity will occur in urban areas of all sizes.

None of this evidence is mentioned in the daily coverage of the crisis by the economic press, whether The Financial Times or The Economist, as well as the Leaders' Statement: The Pittsburgh Summit. There are few references to the sites of the crisis, which seems to exist largely on balance sheets or national accounts, but do not appear in the material world. The October 6, 2009 special section on the "World Economy" of The Financial Times does not refer to any places, noting only that some economies have started to grow but others will have "real scars".¹³ Lacking such specificity, this paper argues, therefore, that this coverage reflects the fact that the stimulus packages have had serious flaws in design.

This paper argues that while the industrialized countries act as if they can take the urban and spatial dimensions of their economies for granted, this perspective is counterproductive for Latin American countries that are the most urbanized among developing countries. They are completing the process of rural to urban transformation, both in demography and in their economies. Their realities now are mostly urban. Not explicitly taking the urban dimension into account is to fail to take advantage of important policy levers which are discussed in later sections of this paper.

The paper is divided into four sections:

1. Prior Hypotheses about Likely Urban Impacts of the Crisis
2. Initial Evidence on the Impact of the Crisis in Urban Areas
3. Assessment of Stimulus Packages: Conception and Design
4. Implications for Policy and Recovery Strategies

¹³ The Financial Times, "World Economy: Special Report", October 6, 2009

I. Prior Hypotheses about Likely Urban Impacts of the Crisis

In December 2008, ten likely specific urban impacts of the crisis and their longer-term consequences were identified as research hypotheses to be studied¹⁴:

- A. Impact on Urban Economic Structure: The reduction of credit would reduce investment, consumption, and urban employment. This would reduce aggregate demand, resulting in a contraction of urban economies, as in Argentina in 2002. This reduction would shift the composition of urban economic activity away from manufacturing, particularly for goods such as cars and other consumer durables, also with negative impacts on the repair industry, marketing, and advertising. It would also lead to greater informality in the short term.
- B. Worsening Urban Poverty and Distribution of Income: Urban poverty and income inequality would worsen. Studies in Latin America – Morley in 1998 for ECLAC – show that when macro-economic growth goes up in the region, everyone goes up; but when it goes down, the poor go deeper and remain there longer. This has been particularly true in the case of Brazil. The longer-term effects of the crisis would include deepening poverty and inequality.
- C. Increased rural to urban migration: Reduced commodity prices, particularly in rural areas, would push people off the land and into cities, giving rise to growing squatter settlements on the peripheries of cities.
- D. Food and energy crises: While food and energy prices declined in comparison to the problems of 2006-2007, they have nevertheless remained high. The problem now is that the “new poor” and many others do not have the income to pay for them.

¹⁴ Michael A. Cohen, “Impacts of the Global Economic Crisis on Cities”, talk to Urban Age Conference on Latin America, Sao Paulo, Brazil, December 3, 2008

- E. Reduced production, trade, and consumption would reduce tax revenues, thereby creating a fiscal crisis.
- F. Reduced tax revenues would lead to reduced social expenditures, including investment in social services like health and education, safety nets, and infrastructure. This would lead to fiscal austerity and a structural adjustment, but not one created by the Washington Consensus.
- G. At the municipal level, financial austerity would lead to more deferred maintenance, thereby increasing the risk of infrastructure failure and the vulnerability of the macro-economy to unreliable urban infrastructure.
- H. All of this falls within what has been studied as a pattern of cumulative causation by the urban economist, George Galster, in a study of over 100 cities in the US in the late 1990s. When interest rates go up, a whole set of cascading impacts follow, including less investment in housing, neighborhoods, lower property taxes, lower school performance, more crime in neighborhoods which affects children and teenagers.¹⁵
- I. The results for urban form and urban governance, considering the projected increases in urban population in developing countries, would be more slums, unlinked to infrastructure networks, more informality, less urban citizenship with increasing numbers people living within, but not connected to legal urban jurisdictions, hence more problems of urban governance.

In considering these hypotheses, which have largely been confirmed, it is important to emphasize that regions, cities, and neighborhoods are likely to be unevenly impacted depending on their various vulnerabilities in their economic base and strength

¹⁵ George Galster, Econometric Model of the Urban Opportunity Structure: Cumulative Causation Among City Markets, Social Problems, and Undeserved Areas, (Diane Publishing, 1998)

of domestic demand. Further, given the particular economic specialization of cities and regions, these impacts will be felt differently as reflected in the differences between the collapse in Detroit and the relative success of foreign automakers with factories in the American South. Within this context, bigger cities should suffer more than smaller ones, although big cities may have the response capacity to mitigate impacts in the short-term through labor augmenting and social welfare policy. Increased unemployment can also be expected to lead to increased informality, with increased informality leading to a decrease in overall well-being of the poor because of competition and lack of labor and wage protection.

It can also be expected that there will be a lag in the effect of these changes, which are first felt at the macro level and then later at the regional and urban levels, i.e. cities have only *started* to suffer. Eventually, following the decline in the real sector, it is now evident that there is the *beginning* of the retreat of services (infrastructure, education, health care) as local and national governments face rapidly decreasing revenue, increasing their debt ratio and limiting response capacity.

II. Initial Evidence on the Urban Impacts of the Crisis

The conditions hypothesized above have been proven correct during 2009 and appear to be some of the actual consequences of the evolution of the global economic crisis. The transformation of a sub-prime mortgage crisis into a series of emerging phenomena demonstrates how financial sector and real sector linkages are intertwined. Many images have been used to describe this process, from a rolling “snow-ball” gathering more snow and becoming bigger and heavier as it rolled down the hill, to a “disease” that was contagious and seemed to skip over national frontiers and land in central and susceptible spaces in one national economy after another. Some authors have written of “channels” of the crisis, including the financial sector through the lack of availability of credit, which in turn reduced both investment and demand, dropping commodity prices and trade volumes resulting from contracting global demand, to reduced public revenues from contracting consumption, production, and income, to

reduced public expenditures which in turn helped to contract the real economy even further.

These channels of impact have led to many new developments including the following examples:

- In China, more than 20 million migrant workers (perhaps 3% of the labor force) working in urban areas were laid off in late 2008, mostly from the construction sector in cities and towns, and told to return to rural areas.¹⁶
- The Mexican economy was expected to shrink by 1.8% in 2009, with job losses between 160,000 and 340,000, mostly in urban areas.¹⁷
- The Cambodian textile industry, located in urban areas, a major source of exports for the country, cut one worker in ten in 2008.
- The Spanish construction sector stopped and unemployment has grown to 14.8% in 2009. Similar stories come from Ireland where 30% of job growth had come from construction.¹⁸
- Workers in manufacturing plants for cars in Argentina and Mexico, aircraft in Brazil, and building sites in Peru have been laid off in late 2008 and early 2009. Overall industrial production numbers in Brazil fell by 12.4% in December 2008. Embraer, the Brazilian aircraft manufacturer, cut 20% of its labor force in February 2009.
- OECD estimates 25 million unemployed people in member countries in 2009.¹⁹

¹⁶ Kathrin Hille, Financial Times, February 2, 2009

¹⁷ Adam Thompson, Financial Times, January 28, 2009

¹⁸ The Economist, March 14, 2009, pp.71-72

- New York City lost about 100,000 jobs from August 2008 to August 2009, largely in the financial sectors, media, advertising, retail sales, entertainment, and tourism. Retail sales are down 8 to 10% in the city. Unemployment for the city as a whole is about 9.5%, but, following the historical pattern, is double in Harlem, reaching 19%.²⁰
- Countries beginning to have access to global financial markets, such as Ghana and Sri Lanka, are now excluded, while countries with emerging local capital markets such as Kenya, Nigeria, Malawi, Ghana, Uganda, and Zambia, felt the impact of sharply contracted credit.²¹ Most credit was destined to small and medium scale enterprises located in urban areas or to construction projects, also more likely to be urban than rural.
- Foreign direct investment in low-income countries fell by at least 20% from 2008 to 2009.²²
- Heavy impacts occurred in the informal economy, which makes up 60-90 % of the work force in various countries.²³ Trade and work volumes declined by 65% for urban waste pickers, street vendors, and home-based workers.²⁴

¹⁹ Federal Reserve Bank of Dallas, International Economic Update, May 2009, p.2

²⁰ Kathryn Wilde, President of New York City Partnership, Speech to Greater Harlem Chamber of Commerce, August 6, 2009, p.2

²¹ International Monetary Fund, The Implications of the Global Financial Crisis for Low-Income Countries, (Washington: IMF, March 2009), p.9

²² Ibid., p.20

²³ International Labor Organization, Men and Women in the formal Economy, a Statistical Picture, (Geneva: ILO, 2002), cited in Zoe Elena Horn, No Cushion to Fall Back On: The Global Economic Crisis and Informal Workers, (Inclusive Cities Study, August 2009), p.3

²⁴ Zoe Elena Horn, op.cit., p.7

- Prices for waste materials declined in cities such as Santiago (50%), Bogota (42%), and Pune(5-7%), India.²⁵
- More workers are appearing in the informal sector, with an estimate of 55% more in a ten-city study.²⁶
- The above study shows an average decrease in informal sector wages of 77% from January to June 2009.²⁷
- Millions of households lost their homes in the housing crisis in the United States, leading to the establishment of tent cities or “Hooverilles” in cities around the US such as Fresno, Seattle, Nashville, and St. Petersburg, Florida.²⁸

Admittedly, not all of these impacts are only urban per se, but many are and they suggest that with most economies having large and majority shares of GDP coming from urban-based economic activities, the global crisis has had major impacts in urban areas.

III. Assessment of Stimulus Packages: Conception and Design

This section will examine the conception and design of stimulus packages, with particular reference to Latin America. A July 2009 World Bank study concluded that the governments in Latin America will spend US\$25 billion in 2009 on stimulus packages, in

²⁵ ibid., p.11

²⁶ ibid., p.12

²⁷ ibid., p.14

²⁸ Jessie McKinley, “Tent Cities Arise and Spread in Recession’s Grip”, The New York Times, March 26, 2009, p.1

amounts ranging from .4 to 1.6% of GDP, which is about 20% more spending than planned.²⁹ Table 1 shows these figures for Latin American countries.

The higher spending on infrastructure in 2009 is above normal for the region and also reflects realistically low expectations about private investment in infrastructure in the present economic climate. It contrasts with past crises when governments assumed that private investment would be forthcoming.³⁰ Table 2 shows past private investments in this sector.

Table 1: Stimulus Packages in Latin America

The challenge here is how to measure short-term employment impacts. The authors note that there are crowding out and substitution effects, local supply versus imported components, and opportunity costs.³¹ These factors could limit the actual size of multipliers. The differences in employment multipliers within the infrastructure sector in Latin American countries are presented below in Table 3. Some infrastructure projects are more labor intensive than others, with rural roads higher.

Table 2: Private Investment in Infrastructure in Latin America

Table 3: Employment Multipliers in Infrastructure Projects in Latin America

Using this data and taking some averages, the authors conclude that for every US\$1 billion spent in infrastructure investment, some 40,000 direct and indirect jobs are

²⁹ Jordan Schwartz, Luis Andres, and Georgeta Dragiou, Crisis in Latin America: Infrastructure, Employment, and the Expectation of Stimulus, Policy Research Working Paper 5009 (Washington: World Bank, Latin American and Caribbean Region, Sustainable Development Department, July 2009), p.3

³⁰ Ibid., p.4

³¹ Ibid., p.7

created. If a slightly higher multiplier is used, then the number is closer to 80,000 jobs created, which would amount to 7% of LAC total unemployment in 2009.³²

This analysis is quite optimistic in terms of the employment-generation capacity of infrastructure investment. The authors, however, wisely also point out that there may be negative aspects of design which undermine these expected benefits. For example, these include contradictory objectives in the design, such as achieving labor intensity but also seeking long-term quality to avoid high maintenance, or poor and ineffective complementarities in investments. Such projects can also have negative environmental consequences. Given the slow rates of project preparation, with averages from 1 to 3 years, some governments barely reach 75% of their annual spending targets.³³ All of this leads to the key conclusion that governments may want to strengthen their ex ante project evaluation to achieve higher multipliers.

The problem of achieving higher multipliers is a key challenge, which is also mentioned in an IMF study that the levels of expenditures and transfers can have significant multiplier effects from .4 to 3.0.³⁴ If the Latin American multipliers are reasonably high, a NBER study on the US shows that the impacts of US stimulus packages impacts are lower, with multiplier effects about 1.0 and decreasing rapidly over time (any program with multipliers less than 1% show negative returns).³⁵

The current U.S. stimulus package has about US\$170 billion of the total \$787 billion devoted to infrastructure spending. While the US Government's estimates of projected job creation by state appears consistent with the urban population and number of cities

³² ibid., p.7

³³ ibid., p.10

³⁴ IMF, Freedman, C., M. Kumhof, D. Laxton, and Jaewoo Lee, "The Case for Global Fiscal Stimulus", IMF Staff Position Note SPN/09/03, Research Department, IMF, March 6, 2009.

³⁵ Schwartz et al, op.cit., p. 10.

over 100,000 per state, (see Table 4) this approach may in fact be a correlation with overall state population rather than with the local urban sites impacts of job loss. This view is supported by an article in The New York Times that reports that US Government web-site, Recovery.org, shows that the job program of the stimulus packages misses the states which need it the most, for example reporting that Colorado with an unemployment rate of 7.3% created 4,700 jobs while Michigan, with 15.2 % unemployed, received only 400 jobs.³⁶ In any case, in the aggregate, the overall unemployment numbers have not declined as of mid-October 2009.

On October 16, 2009, The New York Times also reported that, while 61% of New Jersey citizens continue to support President Obama, 68% have felt no impact of the stimulus packages in their local economy. 37% believe that in the long term there will be a positive impact.³⁷ The newspaper reports, “Economic issues have New Jerseyans near despair”. The Financial Times reports that almost one third of the 5,230 U.S. contractors who have received Federal contractors have not yet started their work and that the average contract has generated just 6 jobs up to now.³⁸

The general literature on multipliers shows that when liquidity constraints and high unemployment exist, multipliers can be larger. This can also result when government spending does not substitute for private spending but enhances the productivity of labor and capital and where government debt is low so there are no financing constraints. Finally, there is also the need to recognize that consumer reaction on the demand side will be heavily influenced by consumer confidence.

³⁶ Michael Cooper and Ron Nixon, “Job Program Found to Miss Many States That Need It Most”, The New York Times, October 16, 2009, p.A17

³⁷ The New York Times, October 16, 2009, p.1 and pp.21-22, “New Jersey Has Little Faith in its Candidates, Poll Shows”,

³⁸ Sarah O’Connor, “Stimulus sustains 30,000 US jobs”, The Financial Times, October 16, 2009, p.3

With these caveats, a review of 140 results of World Bank country and project analyses shows a positive relation between infrastructure and development outcomes. The review also shows that if countries had increased infrastructure spending levels to the regional leader, then the growth of GDP could be expected to increase from 1.1% to 4%. Putting together all of these various assumptions, the IMF's Research Unit concludes that \$1 of investment in infrastructure could generate \$3 in return as stimulus to the economy. This is a large return and thus underlines the significance of infrastructure investment.³⁹

Starting with this overview of Latin American stimulus packages and some initial data from the United States, it is interesting to place these expectations within the wider comparative framework of studies by the UN Economic Commission on Latin America and the Caribbean (ECLAC). ECLAC has twice during the crisis reviewed the range of measures undertaken by Latin American countries and distinguished broadly between public spending measures and tax reductions.⁴⁰ ECLAC reports note that public spending, such as for infrastructure, which actually generates jobs in specific locations tied to specific projects, whether roads or other facilities. However, tax reductions allow greater taxpayer and household discretion, thus allowing for a greater likelihood of saving, which does not stimulate demand and does not generate new multipliers, at least now when it is needed.

IV. Implications for Policy and Recovery Strategies

The previous sections of this paper suggest that impacts of the crisis are significant in urban areas. The economic instruments designed and adopted by most governments in response to the crisis - the stimulus packages - have been largely non-spatial and non-physical. Nevertheless, these measures are expected to stimulate

³⁹ Freedman et al, op.cit.

⁴⁰ ECLAC, Government of the Americas Reactions to the Crisis, up to July 31, 2009, (Santiago: ECLAC, 2009)

economic behaviors which are expected to occur in cities by financing a set of physical investments. Without acknowledging that urban areas account for more than 80 percent of global GDP and more than 60 percent of all GDP in all developing countries, policy-makers have not explicitly defined that “stimulated demand” in relation to either urban spaces, urban sites, or urban flows.

Not only are the measures “disembodied instruments” intended to operate in some abstract space of “the economy”, but as packages of these investments, they also seem to have been designed without regard for either negative externalities such as environmental impact or positive externalities such as bundling of infrastructure services. In a sense, they have been designed without regard to fifty years of professional learning about the social, environmental, political, and cultural contexts of spending for of urban infrastructure and the built environment more generally.⁴¹ This includes not recognizing a now well-understood fact that reliable urban infrastructure matters in the short-run, as demonstrated by its collapse after the Mexico City earthquake in 1984 or in New York after September 11, 2001, as well as in the long-run for development as “social overhead capital” as was well-articulated by Sir. W. Arthur Lewis more than 50 years ago.⁴²

In July 2009, The New York Times reported that significant proportions of spending in the United States had gone to rural infrastructure. A state-by-state review of the spending under the American Recovery and Reinvestment Act confirm those reports. While rural areas do have people in need of employment – and rural poverty is a major issue in all countries - there is little doubt that a plan to stimulate demand and

⁴¹ See for example, National Academy of Sciences, In Our Own Backyard: Principles for Effective Improvement of the Nation’s Infrastructure, The Report of the Committee on Infrastructure, 1993, or World Bank, Infrastructure for Development, World Development Report 1994, (Washington: World Bank, 1994), or Hendropranoto Suselo, John L. Taylor, and Emiel Wegelin, eds. Indonesia;s Urban Infrastructure Development Experience: Critical Lessons of Good Practice, (Jakarta: UN Habitat, 1995)

⁴² W. Arthur Lewis, The Theory of Economic Growth, (Homewood: The Free Press, 1955)

economic multipliers would be more successful in terms of aggregate growth if it targeted areas of large population and economic activity. Spending on rural areas reminds me of the story of the man looking for his eyeglasses under the street light even though he knows that he has lost them in a darkened corner. When asked why he is looking under the light, he replies, "That's where the light is." This outcome demonstrates an absence of concern or awareness of context.

Another interesting dimension of the design of stimulus packages concerns the institutions intended to spend the funds. In China, the Government has used both state banks and provincial and local governments to transfer funds from the Chinese central government. They have discovered, however, that in some cases, local municipalities have not had the capacity to spend the increased funds, so the funds have either remained unused, or have been used to pay off municipal debts. In both cases, this result demonstrates that the eagerness to allocate public monies has ignored capacity constraints.

Several conclusions for strategy emerge from this analysis:

I. Refocusing Instruments to the Context

If there is a consensus that there is an urgent need to stimulate demand and to improve aggregate growth, three foci would seem appropriate:

- Focus on cities, not rural areas. Cities have more dense populations and economic activities, hence more powerful multipliers.
- Focus on cities with higher numbers of people in slums, i.e. the sites of highest vulnerability. This does not exclude the rural poor but it does acknowledge that more activity and capacity exists in urban areas and that this should be target of stimulus.
- Focus on cities with high shares of employment in the informal sector, where multipliers work quickly and reach the poor.

II. Design Instruments for the Real World

Some observers of internationally-supported urban assistance projects remarked in the 1970s that some development projects seemed to want the context to more closely resemble the projects rather than the projects more closely relating to the real world. This criticism seems appropriate again today in the world of stimulus packages. Economists have defined stimulus packages as huge catalysts of economic and social behavior, without taking into account the contexts in which they would operate.

Lessons from several decades of practice of policy and program assistance should be reflected, rather than obviously ignored, in the design of these programs. Indeed, rich countries can learn from the experience of giving aid to poor countries. The single major lesson of development assistance is that context matters and in every case, context wins in the end. In the case of the economy, the context is the space in which economic behavior occurs, not on graphs of supply and demand, but in shops, markets, factories, and households where production, commerce, and consumption occur.

III. Urban Policy should be a Macro-Economic Instrument

This argument is supported by the experience of Argentina's recovery from the crisis of 2001-2002. In the Argentine case, international narratives have tended to emphasize the role of rising commodity prices and growing demand from China. Argentina is said to have been "lucky", saved by global demand for its agricultural exports. These narratives are not correct. Data on the country's recovery from 2002 through 2007 show that it was not led by agricultural exports but was fueled first by urban demand and production. When the Convertibility period ended – and with it the dollar-*peso* parity - and the *peso* was devalued in 2002, price increases for imports stimulated the production of domestic goods and services for consumers. This production in turn generated multiplier effects that supported small and medium-sized

firms and helped to create many new jobs. This later produced a revival of the construction and then the manufacturing sectors as well.⁴³

The contribution of the *campo* to the recovery came later in 2004 and thereafter, as the prices of commodities increased and the planting of larger and larger areas to grow soya and other crops, had huge payoffs. These exports certainly helped build up the country's reserves and fiscal strength during 2004 to 2008, but they cannot be credited with playing the key role in stimulating the recovery. Agricultural exports generated much additional income and eventually public revenue, but Argentina's recovery was largely a "demand led recovery", located in urban areas where 80 percent of Argentines work and live.

The Argentine case is significant because it suggests that the urban locus of macro-economic phenomena in Latin America deserves much more research and appreciation from policy-makers. The historical foci in Latin American urban studies on squatter settlements and infrastructure deficits, social exclusion, civil society mobilization, decentralization, and the "right to the city" are all important subjects. But these bodies of work have ignored the central fact that more than 60 percent of GDP in all Latin American countries comes from urban-based economic activities. The economic and social futures of Latin America lie in urban areas which are at once the sites of productivity and the loci of urban poverty.

Given the relatively high productivity of urban-based economic activities in Latin American countries, an important question concerns the constraints to higher productivity growth. These constraints certainly include, among others, infrastructure deficits, selected regulatory controls, the lack of effective urban finance institutions, and mixed performance by local governments, despite the two decades of decentralization of authority to municipal governments. All of these issues have been, or should be,

⁴³ Michael Cohen, Argentina: Growth and Recovery in a Time of Default, (forthcoming, 2010)

affected by the stimulus packages adopted at the national level to address the current crisis.

The central issue for policy and strategy, therefore, is how to support urban economic policies to stimulate and sustain economic multipliers needed to generate employment and incomes. While the traditional response to this question has been to finance urban infrastructure, as is evident in the above discussion of stimulus packages, it is apparent that infrastructure is a necessary but not a sufficient condition for continued economic activity. Local economic development strategies must be cross- or inter-sectoral, putting in place the incentives and conditions needed to create productive capacity and then finding ways to distribute and sell goods and services.

Urban economic development should not be understood solely as investment, which is frequently the case, but rather as active continuous engagement in building and reinforcing linkages and markets. These linkages and markets should also be built with space and location in mind, utilizing density as an important condition for supporting economic and social interaction. Jane Jacobs developed similar arguments in her book, The Nature of Economies.⁴⁴ The same themes are highlighted by observers such as Bob Herbert who wrote about the importance of “Igniting the Growth of Jobs” in The New York Times.⁴⁵ Going a step further, supporting interaction also requires reducing obstacles and constraints, for example removing unnecessary, heavy, and costly regulatory frameworks such as the classic example of the 55 steps required to obtain a building permit in Kuala Lumpur.⁴⁶

⁴⁴ Jane Jacobs, The Nature of Economies, (New York: The Modern Library, 2000)

⁴⁵ Bob Herbert, “Igniting the Growth of Jobs”, The New York Times, October 10, 2009, p.A19

⁴⁶ Stephen Mayo and Shlomo Angel study for the World Bank on the housing sector in Malaysia.

The issue of supporting productivity increases is obviously one of the key issues in a period of economic crisis. In this regard, it is apparent that investment in urban infrastructure such as water, sanitation, or electricity supports firms seeking to expand their operations, particularly those located on the urban periphery in Latin American cities where infrastructural deficiencies are most pronounced. It also directly helps to create new employment.

As noted above, it is significant that the G-20 discussions in London and in Pittsburgh devoted no recorded attention to urban infrastructure even though most of the “demand” which governments wish to stimulate exists within cities. Stimulus packages do not occur in cyberspace, they should be firmly rooted on the ground where they can have discernable impacts.

The capacity of Latin American economies to withstand the impact of economic downturns, whether from domestic business cycles or global economic crises, ultimately depends on how economic policy supports multipliers that operate in local urban economies. Urban policy therefore has macro-economic implications and is far too important to be left to the “traditional urban disciplines” such as architecture or urban planning. Effective policy, however, requires local knowledge beyond the expertise of macro-economists. The challenge of disciplinary collaboration is one more critical dimension of the present global economic crisis.

Statistical Annex

Table 1

Stimulus Plans for LAC, 2009					
		2009 Stimulus Packages			
	Investment in Public Works		Total Public Works (2009)		Ratio Stimulus vs. Total Investment
	\$B	%GDP	\$B	%GDP	
Argentina	4.4	1.6	17.1	6.1	25.70%
Brazil	6.7	0.5	23.3	1.7	28.80%
Chile	0.7	0.4	4.7	2.7	15.00%
Mexico	6.9	0.8	43.6	4.8	15.80%
Peru	1.6	1.3	5.8	4.6	27.60%
LAC	25	0.5 - 1.0	125	3 - 4	20%
Source - Crisis in LAC: Infrastructure Investment and the Potential for Employment Generation (Washington: The World Bank, 2009)					

Table 2

Private Investment in Infrastructure in Latin America					
	Primary Sector				
Year	Energy	Telecom	Transport	Water and Sewerage	Total Investment
1990	440	3,463	6,691	0	10,594
1991	0	9,101	610	75	9,785
1992	5,140	4,458	2,777	0	12,375
1993	2,857	6,141	2,252	4,071	15,321
1994	4,076	9,261	2,434	525	16,296
1995	6,457	6,528	2,786	1,293	17,064
1996	9,532	9,448	6,294	192	25,467
1997	22,912	12,690	10,767	1,933	48,302
1998	18,816	37,060	11,653	1,276	68,805
1999	10,611	17,832	3,558	6,011	38,011
2000	14,382	16,597	4,533	2,845	38,357
2001	6,265	21,861	4,019	1,165	33,309
2002	8,022	9,570	1,712	604	19,907
2003	7,176	6,951	961	296	15,384
2004	3,387	10,651	2,469	1,133	17,639
2005	4,528	12,615	3,286	190	20,619
2006	7,981	14,337	6,581	713	29,612
2007	10,600	15,613	10,898	606	37,717

Source: Private Participation in Infrastructure Database, World Bank Group.

Table 3:

	Qualified Workers	Non-Qualified Workers	Domestic inputs (mainly material)	Foreign inputs (mainly equipment)	Others	Total	Annual Direct Employment (per US\$1B/yr) [*]
Transport							
Columbia - Access to neighborhoods (streets)	15%	6%	49%	16%	14%	100%	22,500
Columbia - Feeder routes for Transmilenio		43%	27%	23%	6%	99%	35,833
Brazil - Roads	3%	9%	22%	63%	3%	100%	16,577
Argentina - Rosario - highways	1%	0.3%	60%	38%	0%	100%	1,650
Water and Sanitation							
Honduras - Improvement on water captation	28%	12%	40%	20%		100%	43,333
Honduras - Rehabilitation of water networks	30%	20%	40%	10%		100%	58,333
Honduras - Expansion of water networks	20%	30%	40%	10%		100%	66,667
Honduras - New treatment plant	10%	10%	80%	0%		100%	25,000
Columbia - Expansion of WSS networks	8%	56%	32%	4%		100%	100,000
Brazil - Rain drainage networks	8%	16%	48%	28%	0%	100%	34,001
Brazil - Sewerage	4%	11%	68%	17%	0%	100%	21,746
Energy							
US - Solar PV	3-5%			95-97%		100%	2,700
US - Wind power	4-6%			94-96%		100%	3,400
US - Biomass	1-2%			98-99%		100%	700
US - Coal-fired	1-2%			98-99%		100%	750
US - Natural gas-fired	2-4%			96-98%		100%	1,700
Brazil - Hydropower	5-10%			90-95%		100%	4,500
Peru - Rural Electrification	14%	7%	26%	53%	0%	100%	23,000

Source: Jordan Schwartz, et. al. [Crisis in Latin America: Infrastructure, Employment, and the Expectation of Stimulus](#), Policy Research Working Paper 5009 (Washington: World Bank, Latin American and Caribbean Region, Sustainable Development Department, July 2009)

Table 4:

Estimated Job Impact from US Stimulus Package					
US State	Total Urban Population 1/	Rank	ARRA Estimated Jobs Impact (Thousands) 2/	Rank	Number of Cities, Towns or Townships with 100,000+ Population 3/
California	31,985,112	1	139.7	1	63
Texas	17,204,281	2	71.9	3	31
New York	16,602,582	3	72.5	2	15
Florida	14,270,020	4	55.4	4	19
Illinois	10,909,520	5	50.4	5	26
Pennsylvania	9,464,101	6	40.9	6	4
Ohio	8,782,329	7	38.9	7	6
New Jersey	7,939,087	8	31.2	10	4
Michigan	7,419,457	9	36	8	7
Georgia	5,864,163	10	30.8	11	3
Massachusetts	5,801,367	11	27.4	12	5
Virginia	5,169,955	12	24	14	9
North Carolina	4,849,482	13	31.5	9	9
Washington	4,831,106	14	22.6	15	5
Maryland	4,558,668	15	17.4	21	1
Arizona	4,523,535	16	21.4	17	10
Indiana	4,304,011	17	24.4	13	11
Missouri	3,883,442	18	19.2	20	5
Wisconsin	3,663,643	19	22.1	16	3
Colorado	3,633,185	20	16.1	22	9
Tennessee	3,620,018	21	20	19	6
Minnesota	3,490,059	22	20.1	18	3
Louisiana	3,245,665	23	12.7	28	4
Connecticut	2,988,059	24	12.9	27	5
Oregon	2,694,144	25	13.6	24	4
Alabama	2,465,673	26	13.5	25	4
South Carolina	2,427,124	27	13.7	23	2
Oklahoma	2,254,563	28	11.8	29	3
Kentucky	2,253,800	29	13.1	26	2
Utah	1,970,344	30	9.5	31	4
Kansas	1,920,669	31	9.1	32	5
Nevada	1,828,646	32	9.1	33	4
Iowa	1,787,432	33	10.9	30	3

Table continued below

US State	Total Urban Population 1/	Rank	ARRA Estimated Jobs Impact (Thousands) 2/	Rank	Number of Cities, Towns or Townships with 100,000+ Population 3/
Arkansas	1,404,179	34	8.6	34	1
Mississippi	1,387,351	35	8.3	35	1
New Mexico	1,363,501	36	5.3	37	1
Nebraska	1,193,725	37	5.6	36	2
Hawaii	1,108,225	38	4.2	42	1
Rhode Island	953,146	39	4.1	43	1
Idaho	856,962	40	4.6	41	1
West Virginia	832,780	41	5.1	38	0
New Hampshire	732,335	42	4	44	1
Delaware	627,758	43	3	45	0
District of Columbia	572,059	44	4.9	39	N/A
Maine	512,878	45	4.8	40	0
Montana	487,878	46	2.9	46	1
Alaska	411,257	47	2.2	49	1
South Dakota	391,427	48	2.8	47	1
North Dakota	358,958	49	2.2	50	0
Wyoming	321,344	50	1.8	51	0
Vermont	232,448	51	2.3	48	0
1/ - US Census 2000					
2/ - Executive Office of the President, Council of Economic Advisors, <u>Economic Impact of the American Recovery and Reinvestment Act of 2009</u> , First Quarterly Report, September 10, 2009					
3/ - US Census Population Estimates 2008, US Census Bureau					

Table 5.1:

Mexico - Unemployment								
Period	Percent		Period	Percent		Period	Percent	
	National	Urban (32 Cities)		National	Urban (32 Cities)		National	Urban (32 Cities)
2007¹	3.72	4.82	2008^{1P}	3.97	4.92	2009		
January	3.96	4.98	January	4.04	4.81	January	5.00	6.09
February	4.02	4.92	February	3.91	5.00	February	5.30	6.40
March	4.01	5.34	March	3.80	4.87	March	4.76	5.90
April	3.60	4.46	April	3.61	4.51	April	5.25	6.74
May	3.23	4.44	May	3.24	3.92	May	5.31	6.88
June	3.26	4.53	June	3.55	4.59	June	5.17	6.42
July	3.95	5.02	July	4.15	5.21	July	6.12	7.68
August	3.92	4.83	August	4.15	5.23	August	6.28	7.62
September	3.87	5.32	September	4.25	5.18	¹ Arithmetic average of 12 months		
October	3.93	5.00	October	4.11	4.86	^P Preliminary figures beginning with this date		
November	3.46	4.53	November	4.47	5.34	Source: STPS-INEGI, Encuesta Nacional de Ocupación y Empleo.		
December	3.40	4.43	December	4.32	5.54			

Table 5.2

Brazil - Metropolitan Unemployment								
Period	Percent		Period	Percent		Period	Percent	
	Total	Sao Paolo		Total	Sao Paolo		Total	Sao Paolo
2007			2008			2009		
January	9.30	14.40	January	8.00	13.60	January	8.20	11.20
February	9.90	15.30	February	8.70	13.60	February	8.50	12.30
March	10.10	15.90	March	8.60	14.30	March	9.00	14.20
April	10.10	16.30	April	8.50	14.20	April	8.90	14.60
May	10.10	15.50	May	7.90	14.10	May	8.80	14.00
June	9.70	14.90	June	7.80	12.70	June	8.10	13.10
July	9.50	15.00	July	8.10	12.70	July	8.00	13.40
August	9.50	15.00	August	7.60	12.80	August	8.10	13.10
September	9.00	15.10	September	7.60	12.70	Metropolitan Regions (RMs): Recife, Salvador, Belo Horizonte, Rio de Janeiro, São Paulo e Porto Alegre.		
October	8.70	14.40	October	7.50	12.10	Source: Fundação Sistema Estadual de Análise de Dados, Pesquisa de Emprego e Desemprego (Seade/PED)		
November	8.20	14.20	November	7.60	11.80	Source: Instituto Brasileiro de Geografia e Estatística, Pesquisa Mensal de Emprego (IBGE/PME)		
December	7.40	13.50	December	6.80	11.00			

Table 5.3

Chile – Unemployment			
Period		Period	
	Percent		Percent
2008		2009	
January		January	8.00
February		February	8.50
March	7.60	March	9.20
April	7.60	April	9.80
May	8.00	May	10.20
June	8.10	June	10.70
July	8.40	July	10.80
August	8.20	August	10.80
September	7.80	Source: Instituto Nacional de Estadísticas	
October	7.50		
November	7.50		
December	7.50		