Can Latin America Escape from the Middle-Income Trap?
Policy Lessons from a Transregional Comparison

Proposal for a Mellon-LASA Seminar

Seminar Organizer: Eva Paus, Professor of Economics, Mount Holyoke College, USA

Summary

One of the most pressing questions facing Latin American governments today is how to escape from the middle income trap. Economists agree that the only acceptable path is through an expansion of countries’ knowledge-based assets, i.e. the capabilities to move production up the value chain and generate productivity growth that can sustain an increased standard of living. But it is not clear which policies Latin American governments can pursue at this juncture to follow such a path, given internal and global constraints.

Our project aims to increase our understanding of the contingencies behind the successful expansion of knowledge-based assets through a comparative analysis of late developers in Latin America, Asia, Europe and the Middle East. We selected six countries that do not have the size advantages of a Brazil or China and whose governments have adopted pro-active policies for the diversification of the economy and the expansion of knowledge-based assets, at different points in time and with different degrees of success: Chile, Costa Rica, the Dominican Republic, Singapore, Ireland, and Jordan. Costa Rica and the Dominican Republic stand out among Latin American countries for having had considerable success in diversifying the economy up the value chain; but they have become stuck in the middle income trap. Chile has registered the highest growth in Latin America, but is challenged by how to reduce its dependence on copper exports. Singapore and Ireland are much further ahead on the road to a knowledge economy, with Singapore an unequivocal success story, but the fabled Celtic Tiger of the 1990s now in deep distress. Jordan, on the other hand, is more at the level of the Latin American countries, having experienced the development failure of Washington Consensus policies before switching to a more pro-active strategy earlier this decade.

Our comparative analysis will be embedded in a common analytical framework that focuses on four sets of key factors which determine the success of knowledge-based asset expansion: the policy set, the institutional context, resource availability, and internal and domestic constraints. This project breaks the traditional geographical boundaries of Latin American research by bringing together a team of scholars with expertise in a variety of regions and by comparing other countries’ experiences with those of Latin American countries in order to understand better how Latin America might escape the middle income trap. Our objective is to extract policy lessons from the cross-country analysis, lessons for national policies and for the rules that have to govern international economic transactions so that countries can escape the middle income trap. We will present our findings at the LASA Congress in Toronto and other conferences, and publish our results in English and Spanish (and possibly Arabic), for academic audiences as well as for policy makers.

What we Know and What We Need to Learn

At the beginning of the 21st century, most of Latin America is caught in a middle income trap: wages are relatively too high to compete with low wage countries in the production of labor-intensive commodities.
and productivity is relatively too low to compete with more advanced countries in the production of higher-tech and skill-intensive products and services.

Of course, Latin American countries are not all alike, and each has to find a sustainable basis for development in accordance with its country-specific endowments, path dependency, and institutional characteristics. Yet for all, productivity growth and a move up the value chain provide the only shot at the high road to development. The low road of insufficient productivity growth and declining wages is not a road to development, but it is de facto the default option.

The entry of China, India, and the former socialist European countries into the international market has doubled the global labor force and has dramatically intensified competition in home and third markets. The combination of China’s large economy, its high economic growth, and its competitiveness in products across the gamut of technology intensity has heightened the urgency for Latin American producers to move up the value chain (Paus, Prime, and Western 2009).

Economists understand that an expansion of knowledge-based assets requires investment in human capital and research and development (R&D), institutional structures that foster the requisite connections among the business sector, the educational sector, and government institutions to build an innovation system (e.g. OECD 2007, Porter 1990, Dosi et al. 1988), pro-active policies that promote in a comprehensive way the sectors identified as core for a country’s move towards an innovation-based development strategy (e.g. Chang 2008, Reinert 2007, Amsden 2001), a strategic incorporation of transnational corporations, resources to fund the needed investments and support measures, and monetary and exchange rate policies that provide macroeconomic stability.

But we do not understand well enough the contingencies that determine the dynamic interactions among these variables and the impact of global and internal constraints and opportunities. We live in a time where the written and unwritten rules of the global economy no longer sanction many of the policies that late developers employed successfully in the past (e.g. Shadlen and Sanchez-Ancochea 2008, Gallagher 2005), where the mobility of global capital has increased the bargaining power of transnational corporations vis-a-vis national governments, and where globalization and Latin American countries’ internal political and economic structures constrain governments’ ability to raise resources (e.g. Abugattas and Paus 2010). On the other hand, the globalization of production chains has made it possible for developing country firms and sectors to tap into those chains and to find a much broader market for more specialized comparative advantages.

A comparative analysis of how different countries with similar characteristics have responded to these constraints and availed themselves of these opportunities in the expansion of knowledge-based assets will lead to a better understanding of the needed and available policy space that Latin American governments have to escape the middle income trap.

**Country Choices**

We decided to focus on late developers that do not have the development and international bargaining advantages of large economies like China, India, or Brazil. Their relatively small home market imposes early limitations on the extent to which economic growth can be domestically-based and thus necessitates the extensive incorporation of international foreign trade and investment into the expansion of domestic knowledge-based assets. One of the key challenges for the governments of these countries is how to get foreign investors to play a critical role in the expansion of domestic technological capabilities, as countries are not in a position to develop a dynamic domestic knowledge infrastructure all on their own.
With the exception of Chile, the countries in our study are natural resource poor, which means that they cannot tap into commodity price booms to fund necessary policies for structural change. They all registered considerable growth during the last decade until the global crisis, and some substantially more before then (see Appendix I). We chose Singapore, Ireland, and Jordan as comparison cases with Chile, Costa Rica and the Dominican Republic because each offers a particularly interesting constellation of factors in the areas critical for the expansion of knowledge-based assets, and each holds potentially important lessons for Latin American countries.

**Singapore:** One outstanding feature of Singapore’s development process has been the active role that the government has played in shaping economic development policy. One of the main institutions leading this effort has been the Economic Development Board, established in 1961. Singapore has been considered one of the Asian Tigers during the period when those countries took advantage of world growth by switching to export growth from import substitution in the 1960s. Beginning with low wage industries, the country built an industrial base; the government later used incentives to move foreign and domestic production into sectors with more sophisticated labor skills and technology. More recently, Singapore has emphasized building human capital and expertise in R&D, while continuing to support inward and outward FDI and regional free trade (e.g. Blomqvist 2000).

**Ireland:** Between 1990 and the early 2000s, Ireland advanced from one of the poorest economies of the European Union to one of its star performers earning it the title ‘Celtic Tiger. While large foreign investment inflows contributed greatly to Ireland’s growth, the technology spillovers from foreign-owned production were limited. Not until the government adopted deliberate policies to increase the technological capabilities of national companies and to connect domestic producers with transnational corporations did more significant spillovers materialize (e.g. Paus 2005). Ireland provides a fascinating case study of changing dynamics in a high-tech FDI-linked development strategy, as the global economy and the country’s location-specific assets changed in the late 1990s. As the country moved from a high unemployment to a full employment economy, previously cheap skilled labor became more expensive, and foreign investors have relocated, en masse, the production of commodities from Ireland. To boot, the crisis has affected Ireland particularly severely, with the economy projected to contract by eight percent in 2009.

**Jordan:** More than a decade of structural adjustment and Washington Consensus policies did not put the country on a sustainable growth path (e.g. Harrigan, El-Said and Wang 2006). As a result the government adopted a more pro-active strategy during the current decade, starting with the Education Reform for the Knowledge Economy in 2003. During 2002-07, the country has had remarkable economic growth, especially in comparison with other resource-poor countries in the Arab region. During the last ten years, Jordan has signed many free trade agreements, most importantly with the EU, the US, and Israel. The government expects these agreements to provide a platform that will support the Jordanian economy towards a knowledge-based economy. Of particular interest, for the purpose of this study, is Jordan’s attempt to build a competitive advantage in the service area, in the provision of medical services.

**Dominican Republic:** The Dominican Republic achieved a unique transformation of its export structure during the late 1980s and 1990s (e.g. Sánchez-Ancochea 2005), as the share of traditional exports (mainly coffee and sugar) in the total decreased from 50% in 1986 to less than 5% in 2000, while labor-intensive manufacturing goods increased rapidly. The growth of apparel exports was partly the result of changes in the global economy and US policy, but the Dominican government played a central role as well. The Dominican Republic created regulation for its export processing zones earlier than neighboring countries and promoted its expansion through subsidies, a sharp devaluation of its currency and also a relatively effective bureaucratic supporting structure. But as the government has attempted to attract foreign
investment in new sectors such as electronics, the lack of spending in education and social services and the weakness of the electricity infrastructure have become huge constraints.

**Costa Rica:** Since the mid-1980s Costa Rica’s strategy to diversify production and exports has consisted of two main elements: the pursuit of free trade agreements and the attraction of foreign direct investment (FDI). Costa Rica has been remarkably successful in attracting FDI. It is the only country in Latin America where most FDI has gone to manufacturing over the last decade, and it stands out even further for its ability to attract FDI in high-tech sectors (e.g. Cordero and Paus 2008). Yet, while FDI in the Free Zones has had a beneficial impact at the macroeconomic level (through employment and trade balance effects), its effects at the microeconomic level has been rather limited, as backward linkages and technological spillovers have been small. With a tax ratio of only 13 percent, Costa Rica faces great challenges in funding the policies needed for advancing the country’s knowledge-based assets.

**Chile:** Chile is the only natural resource abundant country in our sample, with copper accounting for roughly half of its exports. Over the last three decades, Chile has undertaken different structural reforms aimed at modernizing its institutions and engendering structural change towards the production and export of higher value added products. These policies were successful mainly in a few select agricultural products (wood, wine, sea products). Although Chile has shown the strongest growth in Latin America (some call it the ‘South American Tiger’) these policies did not change the economy’s dependence on copper (e.g. Perez 2009, Solimano 2009). In recent years, the Chilean government has made the expansion of knowledge-based assets an explicit goal of its development strategy, and through a surcharge on copper profits in 2005, it attempted to take advantage of the commodity price boom to finance some of its policies in support of increased innovation and more high-tech development.

**Analytical Framework and Methodology**

Theoretical considerations and empirical studies tell us that the advancement of knowledge-based assets depends on efforts to increase domestic technological capabilities through an expansion of education and training, policies to overcome market failures that hinder the growth of industry- and firm-specific capabilities, strategic incorporation of transnational corporations, and the development of an institutional structure that articulates and executes the cohesive set of polices needed to advance in tandem in these different areas. Our trans-regional comparative study will focus on the types of policies the different governments adopted to promote a structural move up the value chain, the effectiveness of these policies, the extent to which governments’ policy space was constrained by internal or global factors, and the steps governments took to expand that space.

More specifically, our analytical framework focuses on four sets of key factors that condition the advancement of knowledge-based assets: (1) the particular policy set each government adopted and how it changed over time (2) the existence and development of institutional capacity for policy implementation, (3) resource constraints on policy implementation and attempts to overcome them, and (4) opportunities and constraints offered by the globalization process, with particular emphasis on the role of foreign investment and trade and investment agreements. We will use quantitative analysis to assess countries’ advancement in knowledge-based assets (e.g., changes in the structure of production and exports, spillovers from TNC production, expenditures on R&D, etc) and for the quantifiable parts of the four different areas (e.g., government expenditures on particular support programs, foreign aid for the issues at hand, etc). And we will use qualitative analysis to assess how these four areas have shaped the particular outcome in the expansion of knowledge-based assets in each country and how they might account for variations across countries. Based on the existing secondary literature, each project participant will conduct primary research on the issues at hand. That research will be funded from other sources.
A comparative analysis of the particular articulation and relative importance of the four sets of factors will enable us to assess, for example, whether the nature of Jordan’s trade agreements with the European Union offers different opportunities and constraints for the expansion of knowledge-based assets than the trade agreements Costa Rica and the Dominican Republic signed with the US.; or whether Chile’s natural resource abundance turned out to be a decisive asset in providing a funding source to support an expansion of knowledge-based assets; or whether Ireland’s policies enabled it to advance its domestic knowledge assets sufficiently so as to overcome the relocation of TNC production to other countries; or which of the policies that Singapore used in the 1960s and 1970s were critical for its success, which of these are no longer sanctioned by the WTO and countries’ trade and investment agreements, and how Singapore was able to adopt another successful policy set in today’s global environment.

The research team will also analyze how the current global crisis is affecting governments’ actual and potential strategies to escape the middle income trap, and whether adjustments will be required in countries’ development strategies as a result of the global crisis. A crisis does not need to spell the end of a development strategy. Indeed, a recent OECD study (2009) argues that “the past experience of countries such as Finland and Korea shows that reforms aimed at strengthening innovation in the context of broader reforms to address the crisis can help countries emerge stronger from the crisis and put them on a more sustainable growth path.”

**Project Execution and Anticipated Outcomes**

Sic economists are participating in the proposed project, Latin Americans as well as non-Latin Americans, Latin Americanists as well as non-Latin Americanists. Each brings to the project deep knowledge of the issues and of one or several of the countries/regions in the project (see Appendix II).

By focusing on a select few countries from Latin America, Asia, Europe and the Middle East we are putting the analysis and discourse of Latin American development options into a broader comparative context to understand better how countries in Latin America (and elsewhere) may escape the dilemma of the middle income trap. The trans-regional comparative analysis will provide particularly interesting insights as it allows us to identify commonalities and differences in how the core factors of the analytical framework play out under different conditions. The objective of our comparative country analysis is to explore lessons for other countries, separating the unique from the replicable factors regarding country, time and policy variables. We are particularly interested in extracting lessons for national policies and for the rules that have to govern international economic transactions so that countries can escape the middle income trap.

We propose to organize an intensive two-day workshop in early 2010 at Mount Holyoke College in Western Massachusetts. Each participant will bring very preliminary findings and a survey of the existing literature, and we will delineate the road map of analysis so that it is theoretically sound and maximizes the coherence of the cross-country comparison. We will hold a second workshop with the first draft of papers during the LASA Congress in Toronto in October 2010; we will also present our findings in a panel at LASA. We plan to present our comparative study at other conferences as well, including a conference at the University of Costa Rica in 2011 organized by Jose Cordero, one of the project members.

We plan to publish our results as a book in English and Spanish, and possibly Arabic. We will solicit funding from other sources to publish the main findings in summary form with a focus on policy, in print and on-line, so as to disseminate the findings broadly to policy makers and to advance the discussion about development policies in Latin America and elsewhere.
### Appendix I

**GDP p.c. in Project Countries, 1980-2007**

(constant 2005 international $)

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<tr>
<td>Chile</td>
<td>5,369</td>
<td>6,589</td>
<td>10,475</td>
<td>13,108</td>
<td>2.44</td>
<td>1.25</td>
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<tr>
<td>Costa Rica</td>
<td>6,368</td>
<td>6,228</td>
<td>8,117</td>
<td>10,239</td>
<td>1.61</td>
<td>1.26</td>
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<td>Dominican Republic</td>
<td>3,238</td>
<td>3,330</td>
<td>4,957</td>
<td>6,333</td>
<td>1.96</td>
<td>1.27</td>
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<tr>
<td>Jordan</td>
<td>12,784</td>
<td>17,701</td>
<td>32,146</td>
<td>41,036</td>
<td>3.21</td>
<td>1.28</td>
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<tr>
<td>Singapore</td>
<td>3,977</td>
<td>3,331</td>
<td>3,632</td>
<td>4,628</td>
<td>1.16</td>
<td>1.27</td>
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<tr>
<td>Brazil</td>
<td>14,654</td>
<td>23,754</td>
<td>37,304</td>
<td>46,939</td>
<td>3.20</td>
<td>1.26</td>
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Source: Based on World Development Indicators, on-line, accessed August 14, 2009
References


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Eva Paus, Project Organizer
August 28, 2009
Appendix II

Project Participants

Eva A. Paus [Project Organizer]
Professor of Economics
Carol Hoffmann Collins Director, McCulloch Center for Global Initiatives
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(413) 538-3280; epaus@mtholyoke.edu; www.mtholyoke.edu/~epaus

Education: Ph.D., Economics, University of Pittsburgh, 1983

Selected Recent Publications:


Fellowship and Grants
Freeman Foundation, Teagle Foundation, Rockefeller Brothers Fund, DAAD, Marion and Jasper Whiting Foundation, Tinker Foundation, Hewlett Foundation, research grants & fellowships from Mount Holyoke College, doctoral fellowships from the Mellon Foundation and the Inter American Foundation.
Project Members:

Eva Paus [Ireland]

Luis Abugattas, a Peruvian economist, is currently the Team Leader of the Technical Assistance to the Jordan Services Modernization Programme (JSMP), a European Commission financed project to support the liberalization and modernization of the Jordanian Services sector. The project is being undertaken by Jordan Enterprise Development Corporation. He is residing in Jordan and has in depth knowledge of the economy and the current policies of Jordan. Previously he was the Senior Adviser to the UNDP Programme "Trade, Human Development and Economic Governance for the Arab Region" based in Cairo. He has published widely on industrialization, international trade and trade negotiations. [Jordan]

José Antonio Cordero is a professor of Economics at the University of Costa Rica. During the current academic year, he is a senior economist at the Center for Economic and Policy Research (CEPR), in Washington, DC. He has conducted research on economic development and growth in Costa Rica, with an emphasis on the role of foreign direct investment in the local economy. More recently his research has focused on estimating the impact of FDI on productivity growth, and on the sustainability of development strategies. [Costa Rica]

Esteban Pérez Caldentey is an Economic Affairs Officer at the Economic Commission for Latin America and the Caribbean in Santiago, Chile. He worked as Associate Professor of Economics at USACH (Santiago, Chile), as economic affairs officer in ECLAC in Mexico and Trinidad and Tobago, and as a consultant for UNDP in New York. He has published extensively on economic development issues in Latin America. [Chile]

Penelope B. Prime is Professor of Economics in the School of Economics & Business at Mercer University in Atlanta teaching international economics and business, and Director of the China Research Center (www.chinacenter.net). Her research focuses on Asia's economy and business environment, including topics such as China’s foreign trade and investment, domestic market reforms, and provincial and local-level development, as well as applied business and economics cases on China and Asia. [Singapore]

Diego Sánchez-Ancochea is University Lecturer in the Political Economy of Latin America at the University of Oxford and Fellow of St Antony’s College. He has done research on development policy in Central America, including export promotion and the links between industrial and social policies. His comparative work between Costa Rica and the Dominican Republic has contributed to identify some of the political economic determinants of upgrading success and the general weakness of neoliberal globalization. [Dominican Republic]
Proposed Budget:

I. Two-Day Intensive Workshop at Mount Holyoke College, MA in early February 2010

Travel (plane and ground transportation in country of residence)
- Abugattas (roundtrip from Amman) $1,500
- Perez (roundtrip from Santiago) $1,500
- Sanchez-Ancochea (roundtrip from Oxford) $900
- Cordero (roundtrip from San Jose, Costa Rica) $850
- Prime (roundtrip from Atlanta) $500

Ground transportation [Bradley-MHC-Bradley, limo]
- At $75/one way [$75 x10] $750

2 nights at MHC guest house
- At $125/night [$125 x12] $1,500

Meal allowance for 3 days
- At $50/day [$50 x 18] $900

II. Travel support to LASA conference in Toronto in Oct 2010 $3,000

III. Support for publication of study results (translation into Spanish and support for publisher in Latin America) $3,000

IV. Support for travel to conference on the findings of the study at the University of Costa Rica in spring 2011 $5,000

$19,400