Neoliberalism and the Rise of the New Money Doctors:
The Globalization of Economic Expertise in Mexico

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Dr. E.W. Kemmerer, renowned Professor of Money and Banking and International Finance, did not lecture to a class of juniors and seniors in the fall of 1926 as originally scheduled. Instead, in mid-October, he, five other experts, two secretaries and four wives were aboard the British liner Ebro, off the northwest coast of South America. He wrote in his diary, 'We arrived in La Libertad, Ecuador, after dark...Took launch to Salinas, transferred to a smaller launch, then to a dug-out canoe and were finally carried ashore on the backs of natives.'

-- From Kemmerer, Donald L. 1992. *The Life and Times of Professor Edwin Walter Kemmerer, 1875-1845, and How He Became an International "Money Doctor."* Kemmerer, Donald L. P. 1.

ASPE: In the 1950s, when Japan was labor-intensive, it was good that Japan had a current account deficit. Then Japan became highly capital-intensive and now has a surplus of capital.
FORBES: This is getting complicated.
ASPE: I'm sorry if I sound professorial.
FORBES: Don't apologize. It's a pleasure to meet someone running an economy who understands economics.

-- From a *Forbes* magazine interview with former Mexican Finance Minister Pedro Aspe, entitled "We Don't Tax Capital Gains." *Forbes*. August 17, 1992. Pp. 67-68.

Introduction

Toward the beginning of this century, an American economist named Edwin Kemmerer forded tropical rivers and crossed Andean mountain ranges to bring the gospel of the gold standard and responsible central banking to Latin American countries. Since Kemmerer's day, economic experts from industrialized countries have continued to advise Third World governments. Recent advice has come from a variety of academic institutions and schools of thought, from Gary Becker of the University of Chicago, to Rudiger Dornbusch of MIT, to Harvard professor Jeffrey Sachs. Despite this variety of sources, these recommendations reflect the new global consensus in economic policymaking: open trade barriers, deregulate markets, privatize state-owned industries, keep inflation under control, and growth and prosperity will follow.

Even more interesting than this endless supply of foreign advice, however, is how much of it is being supplied by officials of the underdeveloped countries themselves: in today's more sophisticated Third World, the economic expert carried ashore "on the backs of natives" has been replaced by the native economic expert. In Chile, the Chicago Boys of the 1970s and 80s have been replaced by a more diverse group of Chilean foreign-trained economists, who are nevertheless committed to maintaining the Chilean economy on essentially the same neoliberal course (Kinney 1997). Whereas the military regime in Argentina in the 1970s was associated with a similar but smaller and less infamous team of foreign-educated technocrats (see O'Donnell 1973), more recent neoliberal reforms under President Menem were implemented by Harvard-trained Domingo Cavallo and his team of “Cavallo Boys.” In 1992, *Business Week* magazine noted that in Latin America free market reforms were being implemented by "...a new generation of leaders, many of them educated in the U.S. A continental network of Harvard, Chicago and Stanford grads are back home atop business and government ministries spreading a new market mind-set" (Baker and Weiner 1992, p. 51). These economists have replaced Latin America's postwar "developmentalist" model--based on an active, interventionist state and the protection of domestic industry--with a new, more "market friendly" model of development, which is essentially identical to the one generally endorsed by mainstream economists throughout the world.

The phenomenon of foreign-trained economists in government has been particularly notable in Mexico; in 1993 a writer for the *Economist* magazine described Mexico as having "perhaps the most economically literate government in the world ("Respect Restored" 1993: 4). An important recent book on Mexican political elites argues that Mexico has undergone a "technocratic revolution" (Centeno 1994). The high and intermediate levels of the Central Bank, Development Bank, Finance and Commerce Ministries are nearly completely staffed by economists with international credentials; today, even Mexico's President is an economist with a PhD from Yale University. In Mexico today, consultation with foreign economists is practically superfluous: native-born economists with elite Ivy-League training not only prescribe the same policies as those recommended by experts from abroad, but are in a far better position to implement these policies, since they occupy the highest levels of government.

This internationalizing trend within the Mexican government, moreover, has had profound implications for Mexican economics as a whole. Because top policymakers with elite foreign credentials prefer to work with associates with similar credentials and a similar approach, getting an MA or a PhD in economics has become a near prerequisite for aquiring a medium- to upper-level job in the Mexican economic policy bureaucracy. This, in turn, has favored graduates from highly-internationalized undergraduate economics programs like that of the Autonomous Technological Institute of Mexico (ITAM), which has a staff of professors with elite foreign degrees and a good record of placement in foreign graduate programs. This trend has also favored those Mexican graduate programs in economics that most closely resemble those in the United States, both in terms of the international credentials of the professors teaching there, and with respect to the course content: two outstanding examples of such graduate programs in economics are those of the Colegio de México and the Center for Economic Training and Research (CIDE). Thus, the demand for foreign-trained economists in government has created a demand for foreign-trained professors in Mexican academia, leading to a more general process of internationalization in Mexican economics. Such internationalization of local economics professions in developing countries has been noted by several authors, including Loureiro (1996) for the case of Brazil, Choi (1996) for the case of South Korea, and Ambirajan (1996) for the case of India.

This paper examines the case of Mexican economics to address the general theoretical question of how foreign models of economic expertise come to be reproduced locally in developing countries. Its point of departure is that the functionalist explanation for this phenomenon is less than satisfactory. This explanation, which tends to be assumed (although not explicitly stated) by the international business press, is essentially that economists are in charge of economic policy because they are they are the best people for the job. There are several outstanding objections to this explanation. First, there is no *a priori* reason to expect that those best qualified to govern will naturally be called upon to do so: this assumption confounds a normative judgement of the goodness of technocratic policies with an explanatory account of the process whereby the technocrats are empowered to implement them.[1]

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[1] Indeed, economists and other rational choice theorists have been telling us for years that government interference in markets needs to be minimized because honest and competent policymakers cannot be reliably produced in a world of individual utility maximizers: we ultimately can thank economists for formalizing the insight that no policymaker--not even an economist--is above politics, and that every policy has its constituents (cf. Krueger 1974).

Second, the proposition that an academic economist is naturally better equipped to manage economic policy than, say, a lawyer with twenty years experience in banking, or a public official with a background in business, is hardly unassailable. The graduate training leading up to a PhD is as esoteric in economics as it is in any other academic discipline; unlike pre-professional programs like law, engineering, or business, such programs tend toward the theoretical rather than the practically applicable--especially in the United States, where academic employment is the implicit and most highly valued goal of graduate training in the most social sciences (*see* Colander and Klamer 1990: 181; Frey and Eichenberger 1993). Third, there is a great deal of cross-national and historical variation in the presence of academic economists in top policymaking positions. It has only been in recent decades that economic experts have come to replace lawyers in these positions--and even today, the governments of different countries differ in the extent to which they have been "economized" (Markoff and Montecinos 1993). To take one prominent example, one of the most important economic policymakers in the United States is Robert Rubin, a lawyer with long experience in the private sector; his predecessor, Lloyd Bentsen, had similar credentials. Moreover, the presence of economists in government varies substantially between developed and developing countries: economists are more likely to acquire top government positions in the Third rather than the First World ("Economic Policy..." 10/14/93: 63).

Rather than assuming that certain kinds of professionals achieve prominence in certain fields of practice because of their objective qualifications, this paper departs from the idea that professions achieve hegemony through a process of legitimation (Abbott 1988). In other words, professions must fundamentally convince a group of people that they are those best qualified to be performing a certain kind of task. At the same time, however, I contend that the group to whom professionals must become legitimate is a variable rather than a constant. In developing countries, the legimacy of economic policymaking with respect to external actors (such as foreign investors and international financial institutions) is more important at some times, and less important at others. It is when such legitimacy is most important that internationally-trained money doctors--both domestic and foreign--become important in developing countries.

The Rise of Foreign-trained Economists: Culture vs. Power

"Neoinstitutionalist" sociology (not to be confused with the school of thought having the same name in economics) deals with changes in organizations and other institutions over time, from corporations to government bureaucracies to professions. A group of neoinstitutionalist theories dealing with "institutional isomorphism"--in everyday language, the tendency of different institutions and organizations to become more similar to one another over time--provides a promising set of explanatory tools for accounting for why foreign-trained economists have come to proliferate in the governments of developing countries. In recent years, there has been a striking process of international institutional isomorphism in developing countries, in which foreign standards of economic expertise have come to dominate both policymaking bureaucracies and local economics professions.

For the purposes of this paper, two different sorts of explanations for such isomorphic processes stand out in the neoinstitutionalist literature: one emphasizing culture, and the other emphasizing power. The cultural approach is favored by a group of sociologists at Stanford university (cf. Boli and Ramírez 1986; Meyer, Boli and Thomas 1994; Meyer, Boli, Thomas and Ramírez 1997). The central claim of this extremely ambitious theory of diffusion is the existence of "rationalized world culture": contemporary nation-states share a common culture of rationality, organizing themselves around shared values through which they legitimate themselves, including human rights, scientific investigation, democracy and socioeconomic development. This transnational culture is shared among educated elites of widely varying national contexts, and inevitably leads to imitation and the international spread of organizational and institutional models. To take an example relevant to the case at hand, contemporary nation-states routinely adopt the goal of economic development--at least at the rhetorical level. This leads to the construction of similar institutions, such as central banks and development banks, and the formation of economics professions in local contexts. At the same time, the growing proliferation of international organizations generates a univeralistic discourse and manifold recommendations which have the general effect of making international organizations and institutions more similar over time.

To distinguish this theory of international diffusion from other neoinstitutionalist theories in sociology, I will heretofore refer to it as world-cultural theory. There are several outstanding problems with world-cultural theory, at least insofar as it applies to the internationalization of economics in developing countries. One problem with world-cultural theory is its assumption of the monolithic nature of the models being diffused transnationally. This assumption seems rather farfetched if we reflect on the competing communist and democratic-capitalist models of the Cold War: this example shows that within the framework of "modernity" or "Western values" there are at least two possible major variants. Indeed, even within the single model, there can exist important variants: not only can multiple different legal and political systems exist under the rubric of democracy, but a burgeoining sociological literature shows that a variety of different sorts of institutional arrangements can flourish under the umbrella of capitalism (*see* Orrú, Biggart and Hamilton 1997; Hollingsworth and Boyer 1997; Guillén 1994). Another problem with world-cultural theory is that it overlooks how power and resource inequalities within the world system foster imitation: world-cultural theory assumes that shared transnational culture and common standards of legitimation are sufficient explanation for why institutions are coming to look more similar across national contexts.

A somewhat different approach to the issue of international institutional isomorphism is taken by DiMaggio and Powell (1991), who distinguish among different sorts of isomorphic pressures that can affect the institutions within an "organizational fields"--networks of organizations in the same line of business, such as states or central banks. Like the world-cultural theorists, DiMaggio and Powell recognize the role of legitimation based in shared culture in promoting similar organizational forms (1991:65). Unlike the world-cultural theorists, however, these authors also recognize that power and resource inequalities can also foster imitation and growing similarity. Among the different sorts of isomorphic processes identified by these authors is "coercive" ismorphism, or conformity based on dependence on external resources (DiMaggio and Powell 1991:67).[2] Drawing on the work of DiMaggio and Powell and other neoinstitutionalists, Markoff and Montecinos (1993) suggest that sometimes the adoption of international standards of economic expertise arise in response to their dependence on the resources of powerful external actors (p. 46). Foreign-trained economists in LDC governments represent a form of ceremonial conformity to the standards of actors with power over these governments, rather than a functional adaptation to increased technical need.

This paper begins with the central idea that resource dependence is a critical variable in determining the internationalization of policymaking bureaucracies and local economics professions in developing countries. This compelling idea is by no means original, and has been

2 The term "coercive" is somewhat misleading when applied to the voluntary adoption of standards by an organization attempting to secure external resources; a Third World government hiring foreign-trained economists to foster investor confidence, for example, is only "coerced" in the sense that a job applicant is "coerced" into dressing conservatively for a job interview.

taken up by sociologists (cf. Markoff and Montecinos 1993), historians (cf. Rosenberg and Rosenberg 1994), economists (cf. Eichengreen 1994), political scientists (cf. Schneider 1998), and even by some of the more astute business journalists. Much of this discussion, however, has taken the form of theorizing with some anecdotal evidence. In contrast, this paper draws on my research on the Mexican economics profession to suggest some concrete ways that resource dependence has shaped both economics and economic policymaking in Mexico.

At the same time, through examining the Mexican case, I wish to suggest that resource dependence and the need to conform to the demands of external actors are best viewed as a changing set of historical circumstances about which useful and meaningful cross-national generalizations can be made: during some historical periods the resource dependence of countries like Mexico has been high, and during others it has been low. It is significant that the "new money doctors" of the developing world are becoming prominent at a time when levels of LDC indebtedness are extremely high, and the conditions placed on access to these resources extreme. These conditions parallel those predominating during first phase of money-doctoring at the beginning of the twentieth century.

Finally, this paper also attempts a synthesis of some of the more power-based neoinstitutionalist explanations with world-cultural theory. It is mistaken, in my view, to see foreign-trained economists in the Mexican government as the externally-imposed domestic representatives of foreign capital--the technocratic equivalent of the "home rule" governments imposed by the British in their colonies during the 19th century. The presence of these economists also reflects the legitimacy of international standards of economic expertise across a wide variety of national contexts. I wish to suggest that processes of cultural globalization, such as the adoption of foreign standards of economic expertise by LDC governments, are best understood as resulting from both legitimation and power: both cultural and coercion-based explanations have explanatory value.

Mexican Economics: From the UNAM to the ITAM

Toppled by the Mexican revolution of 1910-17, the dictatorship of Porfirio Díaz was particularly known for a group of technocrats known as the *científicos*, who justified the more brutal and unjust aspects of the regime through references to European philosophical and economic theories. However technical they may have seemed at the time, the *científicos* were actually lawyers who dabbled in economics rather than economists in the modern sense. The Mexican economics profession was not inaugurated until after the revolution, with the establishment of Mexico's first economics program at the public national university (UNAM) in 1929.

From the outset, the UNAM program was aimed at training aspiring state functionaries. An adverisement for the new program announced that "Economics graduates can occupy the most important administrative posts in the Federal and local government because their knowledge is especially oriented toward this end" (*El Economista* 2/16/29: 6). The founders of the National School of Economics were government officials as well as individuals who had played an important role in the construction of Mexican government institutions, such as the Central Bank. These individuals were all keenly aware of foreign standards for economic policymaking, and several of them had studied abroad--most notably Daniel Cosío Villegas, who took courses in economics at various universities in the United States.

It was not coincidental that the Mexican economics profession appeared and flourished precisely when the role of the Mexican state in the economy was expanding. During the 1920s and 30s, new institutions--such as the Central Bank and the industrial development bank--were founded to make new forms of state interventionism possible. These new forms of state intervention and the new institutions that would carry them out required a new class of experts and techniques. So eager were such government officials for economically literate employees that many UNAM economics students were hired while still in their first years of coursework; still others were government employees even *before* they began their University studies.

While the Mexican state was taking a more active role in promoting economic growth and development in the 1930s, it was simultaneously solidifying its mass base under the populist presidency of Lázaro Cárdenas. Cárdenas supported workers against their employers in strikes, implemented an ambitious land reform program, and nationalized the holdings of foreign oil companies. In Mexico, as elsewhere in the world, the 1930s were a time of great social upheaval, and radical solutions were suggested to address economic crises seen by some as symptoms of the end of capitalism. Many of the founders and first professors of the National School of Economics were supporters of Cárdenas and influenced by Marxist and other socialist ideas.

As a result, the National School of Economics had a leftist element from its very inception. Marx was the most-cited theoretical author of the School's first 75 undergraduate theses, although very few of these theses could be characterized as Marxist or socialist in the strong sense. The appeal of these ideas can be explained in part as resulting from the lack of less radical theoretical alternatives to the classical economic prescriptions of unfettered free markets and free trade. In the mid-1930s, the ideas of Keynes were only beginning to be well-known in the developed world, and a Spanish translation of Keynes' *General Theory* would not be available in Mexico until 1942. Nevertheless--and in keeping with the observations of world-cultural theorists--the first theses coming out of the UNAM School of Economics were not citing indigenous Mexican authors, but rather a standard canon of Western economists, including not only Marx, but also Smith and Ricardo. Mexican economics was, from its very inception, founded on international standards of expertise.

In Mexico, the 1930s were also a period of growing conflict between the state and groups within the private sector who felt threatened by the government's populist rhetoric and policies. This conflict was most clearly manifested in Cárdenas speech warning employers that if they were "tired of the social struggle, they can turn their industries over to the workers or the government" (LaBotz 1988: 61). In response, the private sector organized various forms of opposition to the government. One anti-Cardenista private sector group was the Mexican Cultural Association, which proposed the founding of a new school of economics untainted by the leftist ideology of the UNAM program. The Technological Institute of Mexico, or ITM in Spanish, was founded in 1946, with economics as its centerpiece program.[3] The founding institutions of the ITM included 7 large banks and several large companies from the Northern industrial city of Monterrey, including the Monterrey Iron and Steel Smelting Company and the Moctezuma beer company. Interestingly, the Mexican Central Bank was also involved in the new school's foundation, a probable result of connections between private and public-sector bankers (the Central Bank director at the time was a private banker who was important in the ITM's founding).

The ideological goals of ITM economics were reflected somewhat in undergraduate theses from the late 1950s, which did not cite Marx even once--in marked contrast to the numerous citations of Marx in the UNAM theses of the early 1930s. But a comparison of the two institutions from *the same* period (the late 1950s) reveals a startling degree of similarity. First, the most-cited theoretical author of both institutions from this period was John Maynard Keynes.

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[3] In the 1950s, other private-sector economics programs would be established in Monterrey and Guadalajara; these programs, however, lacked the ITM's ideological, policy-oriented goals.

The similarity in outlook implied by this common citation pattern is further demonstrated by the two groups' nearly identical positions on state interventionism. Moreover, theses from both the UNAM and the ITM had the rhetoric of Latin American developmentalism (often associated with the United Nations Commission on Latin America, or ECLA), emphasizing the fundamental differences between developed and developing countries, and the necessity of state intervention to rescue Mexico from economic backwardness. How could a profession apparently so divided in 1946 have found common ground by 1958? The most compelling answer is that by the late 1950s consensus between the state and private sector in Mexico meant that their respective economics programs could share similar perspectives on fundamental issues.

When the postwar consensus began to break down, however, the unity of Mexican economics broke down along with it. By the early 1970s, most economists and public officials agreed that the old development strategy was no longer working: many began to speak of the "exhaustion" of this model, or "the end of the easy phase" of import substitution. Apparently even more "exhausted" than Mexican development policy was its authoritarian, single-party political system. Throughout the 1960s, Mexican public university students became increasingly radicalized. What the student movement's diverse sectors had in common was opposition to an unjust social order, and the undemocratic political system that had maintained the stability necessary for this order to prosper; in 1968, the brutal massacre of a student movement gathering at Tlatelolco plaza served to further radicalize the movement.

The populist government of Luis Echeverría (1970-76) subsequently arrived to smooth over social turbulence, with vastly increased social spending and a policy of reconciliation with the university. Under Echeverría, leftist activism within the university was tolerated, public education budgets skyrocketed, and public university admissions increased massively. The student movement took advantage of this atmosphere of greater tolerance to demand radical changes in the programs of studies of different departments of the UNAM, and greatly increased participation of students and professors in academic policymaking. A set of curriculum changes implemented in 1975 were designed to satisfy movement demands, and remade the School's program into an essentially Marxist one--among numerous other changes, the new program had 7 required semesters of Marxist theory.

In this way, the student movement was able to utilize government resources to transform the UNAM economics program into a very different institution than the center for the training of government bureaucrats that it had been in the 1950s: for the student movement of the 1970s, to work for the government was to work for the enemy, and the new study program deliberately de-emphasized practical training for aspiring government officials. As the public university system expanded, some top UNAM economics graduates were able to find employment as full-time professors, a relatively new job category in Mexico. The vast majority, however, had to continue to seek employment in the public sector--where employers were increasingly uninterested in what the radicalized UNAM economics program had to offer.

An additional disadvantage suffered by UNAM graduates in the job market was the increasing indispensability of foreign postgraduate training, which by the 1970s had become a practical necessity for being considered an "economist" in Mexico--a trend that will be discussed further in the following section. While the new leftist focus of UNAM economics put its students at an obvious disadvantage in gaining access to mainstream foreign postgraduate programs and scholarships, the ITAM had undergone an evolution that had essentially transformed it into a prep school for graduate economics study in the United States.

Mexico's shift to freer markets under the administration of Miguel de la Madrid (1982-88) “paralleled the rise within the Mexican economic policy bureaucracy of a group of young foreign-educated professional economists who worked in tandem and used their technical expertise as well as their positions of responsibility to lead Mexico in a new direction" (Golob 1997: 98). In the 1980s and 90s, U.S.-trained economists rose to prominence in every single branch of Mexican economic policymaking, in some ostensibly non-economic branches (such as education), and, most recently, to the presidency itself. At the same time, the ITAM --virtually unkown to scholars of Mexican political elites in the 1970s--rose to acquire an importance disproportionate to its small size. Among the ITAM graduates to have achieved high public office since 1982 have been two Finance Ministers, a Finance Deputy Minister, and practically the entire upper stratum of the Mexican Central Bank. Graduates of other private programs (such as the Anahuac in Mexico City and the Tec in Monterrey) and elite publicly-funded graduate programs (such as the Colegio de Mexico and the CIDE) have also been notable newcomers to Mexican economic policymaking. The common factor uniting all these programs, of course, is their foreign orientation: a significant proportion of their professors have foreign training, and these programs provide their students with either solid preparation in U.S.-style economics (which can be utilized to pursue postgraduate training abroad), or a graduate education that is generally equivalent to foreign postgraduate training.

The Rise of Foreign-Trained Economists in the Mexican Government

It is easy to slip into overgeneralization (as did the international business press) and say that Mexico has been ruled by economists since 1982. In fact, however, Ernesto Zedillo is the first Mexican president to be an economist in the sense that the word is utilized in the United States--that is to say, with a university PhD in economics. President de la Madrid (1982-88) was a lawyer with an MA in administration from Harvard; although President Salinas (1988-94) studied economics as an undergraduate at the UNAM,[4] his Harvard PhD is in "political economy and government" (admittedly a field in which he must have had to master a great deal of economic theory).

Whether or not Presidents De la Madrid and Salinas were "real" economists, it is nevertheless unmistakably true that since 1982, foreign-trained economists have had a nearly unchallenged monopoly over Mexican economic policymaking (see Table 1). As Centeno (1994) has shown so thoroughly, since de la Madrid's accession to the presidency the Mexican government has been dominated by a particular *camarilla* (or political network of patron-client relationships), of individuals fitting the profile of what various authors define alternatively as "political technocrats" (Grindle 1977, Camp 1985) or simply "technocrats" (Centeno 1994).

However, if we shift theoretical lenses and look at the phenomenon of neoliberal technocracy from the perspective of neoinstitutionalist sociology, developments in Mexican economic policymaking since 1982 do not seem so dramatic. The meteoric rise of a particular political "family" of technocrats in the 1980s was not paralleled by a sudden professional coup d'état replacing lawyers with economists. Rather, the rise of neoliberal economists in Mexico represents the culmination of a long, gradual ascent of economists in government dating back to the 1950s, as illustrated in Table 1.

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4 It is widely believed in Mexico that during his time at the UNAM, Salinas belonged to a Maoist group within the radical student movement.

TABLE 1: Top Economic Policymaking Positions[5] in Mexico, 1940-Present*

Name	Position/Year	Undergraduate Degree	Graduate Degree
Manuel Avila Camacho	President 1940-46	None.	None.
Eduardo Suárez	Finance Minister 1935-46	UNAM Law 1917	None
Eduardo Villaseñor	Central Bank Director 1940-46	Studies at University of London, no degree	None
Francisco Gaxiola	Commerce Minister 1940-44	Escuela Libre de Derecho Law 1922	None.
Gustavo Serrano	Commerce Minister 1944-46	UNAM Engineering[6]	None
Miguel Aleman	President 1946-52	UNAM Law 1928	None.
Ramón Beteta	Finance Minister 1946-52	University of Texas Economics B.A. 1923 UNAM Law 1926	UNAM PhD Social Sciences 1934
Carlos Novoa	Central Bank Director 1946-52	UNAM Law 1926	None
Antonio Ruíz Galindo	Commerce Minister 1946-48	UNAM studies in business, no degree	None
Antonio Martínez Báez	Commerce Minister 1948-52	UNAM Law 1926	None
Adolfo Ruíz Cortínez	President 1952-58	None.	None.
Antonio Carrillo Flores	Finance Minister 1952-58	UNAM Law 1929	None
Rodrigo Gómez	Central Bank Director 1952-70	None (secondary studies in accounting)	None
Gilberto Loyo	Commerce Minister 1952-58	UNAM Economics;[7] University of Rome Statistics 1932	None
Adolfo López Mateos	President 1958-64	UNAM Law 1934	None.
Antonio Ortíz Mena	Finance Minister 1958-70	UNAM Law 1928	None
Raúl Salinas Lozano	Commerce Minister 1958-64	UNAM Economics 1944	MA Public Administration, American University, 1945 MA Economics, Harvard, 1946
Gustavo Díaz Ordaz	President 1964-70	University of Puebla Law 1937	None.
Octaviano Campos Salas	Commerce Minister 1964-70	UNAM Economics 1944	Graduate work, economics, University of Chicago 1944-47

*Source: Camp 1994.

5 Top positions include President, Finance Minister, Commerce Minister, and central bank Director; the Minister of Budget and Planning is included for the years that the Ministry existed as a separate entity (1976-1992). Sources: Camp (1995) and Unidad de la Crónica Presidencial (1994).

6 The source of this datum is Víctor Urquidi.

7 This datum may be incorrect; Víctor Urquidi recalls that Loyo was rumored to have received an undergraduate degree from the Universidad Veracruzana, and not in economics.

TABLE 1 (continued): Top Economic Policymaking Positions in Mexico, 1940-Present

Luis Echeverría Alvarez	President 1970-76	UNAM Law 1945	None.
Hugo B. Margaín	Finance Minister 1970-73	UNAM Law 1938	Graduate work at Harvard University in taxation.[8]
José López Portillo	Finance Minister 1973-75	UNAM Law 1946	None.
Mario Ramón Beteta	Finance Minister 1975-76	UNAM Law 1948	MA Economics University of Wisconsin 1950
Ernesto Fernández Hurtado	Central Bank Director 1970-76	UNAM Economics 1945	MA Public administration, Harvard, 1948
Carlos Torres Manzo	Commerce Minister 1970-74	UNAM Economics 1952	Graduate studies, London School of Economics 1957
José Campillo Sáinz	Commerce Minister 1974-76	UNAM Law 1941	None
José López Portillo	President 1976-82	UNAM Law 1946	None.
Julio Rodolfo Moctezuma Cid	Finance Minister 1976-77	UNAM Law	None
David Ibarra	Finance Minister 1977-82	UNAM Economics 1957	PhD Economics Stanford 1961
Gustavo Romero Kolbeck	Central Bank Director 1976-82	UNAM Economics 1946	Graduate studies, University of Chicago and Washington University, 1947-48
Miguel Mancera Aguayo	Central Bank Director 1982[9]	ITAM Economics, 1956	MA Economics, Yale, 1960
Carlos Tello Macías	Central Bank Director 1982	Georgetown University, BS, 1958	MS Columbia University 1959 Studies in Economics, King's College, Cambridge, 1961-63
Fernando Solana	Commerce Minister 1976-77	UNAM Political Science 1964	None
Jorge de la Vega Domínguez	Commerce Minister 1977-82	UNAM Economics 1958	None
Miguel de la Madrid	President, 1982-88	UNAM Law, 1957	MA Public Administration, Harvard, 1965
Jesús Silva Herzog, Jr.	Minister of Finance, 1982-86	UNAM Economics, 1957	MA Economics, Yale, 1962
Gustavo Petricioli	Minister of Finance, 1986-88	ITAM Economics, 1952	MA Economics, Yale, 1958
Miguel Mancera Aguayo	Central Bank Director, 1982-97	ITAM Economics, 1956	MA Economics, Yale, 1960
Héctor Hernández Cervantes	Minister of Commerce, 1982-88	UNAM Economics, 1945	MA Economics, University of Melbourne, 1950
Carlos Salinas de Gortari.	Minister of Budget and Planning, 1982-87	UNAM Economics, 1969	PhD Political Economy and Government, Harvard, 1978
Pedro Aspe Armella	Minister of Budget and Planing, 1987-88	ITAM Economics, 1974	PhD Economics, MIT, 1978

8 The source of this datum is Víctor Urquidi.

9 Mancera's tenure lasted a few months; he was replaced for a few months by Tello, and then reinstated as central bank director the same year when Miguel de la Madrid assumed the presidency.

TABLE 1 (continued): Top Economic Policymaking Positions in Mexico, 1940-Present

Carlos Salinas de Gortari	President, 1988-94	UNAM Economics, 1969	PhD Political Economy and Government, Harvard, 1978
Pedro Aspe Armella	Minister of Finance, 1988-94	ITAM Economics, 1974	PhD Economics, MIT, 1978
Jaime Serra Puche	Minister of Commerce, 1988-94	UNAM Political Science, 1973	PhD Economics, Yale, 1979
Ernesto Zedillo Ponce de León	Minister of Budget and Planning, 1988-92	Politécnico Economics, 1972	PhD Economics, Yale, 1978
Ernesto Zedillo Ponce de León	President, 1994-present	Politécnico Economics, 1972	PhD Economics, Yale, 1978
Guillermo Ortíz Martínez	Minister of Commerce, 1994-95	UNAM Economics 1972	PhD Economics, Stanford, 1977
Jaime Serra Puche	Minister of Finance, 1994-95	UNAM Political Science, 1973	PhD Economics, Yale, 1979
Guillermo Ortíz Martínez	Minister of Finance, 1995-97	UNAM Economics 1972	PhD Economics, Stanford, 1977
José Angel Gurría Treviño	Minister of Finance, 1997-present	UNAM Economics 1972	MA Econ. Development and Public Finance, University of Leeds, 1974 MA International Relations, USC, 1978
Guillermo Ortíz Martínez	Central Bank Director, 1997-present	UNAM Economics 1972	PhD Economics, Stanford, 1977
Herminio Blanco	Minister of Commerce, 1995-present	Monterrey Tec Economics, 1971	PhD Economics, University of Chicago, 1978

Table 1 shows that in the 1940s, Mexican economic policymaking was indisputably in the hands of domestically-trained amateurs. These amateurs were mostly (although not exclusively) lawyers, as were Mexican political elites more generally until the 1980s (Camp 1980). During the period in Mexican economic history known as "stablizing development" (1955-70), there was only one central bank director (Rodrigo Gómez), and only two Finance Ministers, one of whom (Antonio Ortíz Mena) lasted through two presidential administrations. Rodrigo Gómez and Antonio Ortíz Mena are usually credited by economic historians as being responsible for the most stable period of economic growth in Mexican history. Neither was an economist: Ortíz Mena was a lawyer with extensive economic policy experience, and Gómez was an accountant who rose through the ranks of the Mexican central bank to become director.

Nevertheless, in the 1940s and 50s, economists began to appear in top policymaking positions. It is extremely important to note that unlike the amateur (mostly lawyer) policymakers in Mexico before 1982, who generally followed Camp's (1980, 1984) classical trajectory of going straight from UNAM law to a political career that involved no further study, the economists usually arrived at top economic policymaking positions only after receiving postgraduate education of some sort. This provides an important clue as to how economists made their way into top policy positions in Mexico. Unlike an UNAM law degree, an UNAM economics degree was clearly not sufficient for entrance into the high ranks of Mexican economic policy making.

Given what we know from Camp (1980, 1984) and Smith (1979) about Mexican political elites and the *camarilla* system, it is obvious why an undergraduate degree in economics was not sufficient in terms of political connections: Mexican political elites rose on the basis of the horizontal ties they formed as undergraduates, and economics students did not have the same access to these networks, which centered around the UNAM Law School. UNAM economics students may have been able to get bureaucratic jobs through networking with their professors with relative ease; but the political career that led to high office with scant or unspecialized credentials was based on horizontal ties that were formed within the School of Law, not the School of Economics.

In lieu of being able to rise on the basis of their political connections, economists in Mexico had to rise on the basis of their know-how and credentials. During the first decades of the newly-inaugurated UNAM School of Economics, classes were given mostly by self-taught economists like Jesús Silva Herzog, whose nationalist credentials exceeded their claim to being professionals. It was not surprising, therefore, that from the very beginning, economists who rose to high office in Mexico were those who had studied abroad. A degree from the National School of Economics was sufficient to become a bureaucrat, but to become a technocrat, more specialized training was required.

The idea that Mexican economists rose to high government position based on their credentials, however, begs the question of to whom those credentials were legitimate, and why. After all, an organization may hire a given sort of professional for different reasons. One reason is that the profession has been "legitimated" within the organization itself. Thus, for example, hospitals hire doctors because hospital administrators believe that doctors are the best experts available on matters concerning the human body. In contrast, another reason why an organization may hire a particular kind of professional is that its expertise has been legitimated by a powerful external actor, to whose standards the organization must conform: Edelman's (1991) example of Affirmative Action officers hired by firms to protect themselves from potential lawsuits is a good example of this. Third World political leaders may put foreign-trained economists into positions of policymaking responsibility either because they believe in the usefulness of their expertise, or because international pressures reward certain kinds of credentials with resources.

The available evidence suggests that internal or domestic legitimacy played an important role in the ascent of internationally-trained economists in the Mexican policymaking bureaucracy. Among the evidence supporting this interpretation is that Mexican economics was not just made more international over time, but rather was international from the very beginning. The economics program at the UNAM had been founded by amateur economic policymakers who believed that economic expertise was essential to the functioning of their ministries (cf. Pallares 1952: 77). The government agencies that UNAM economics had been founded to staff--the central bank, the development bank, the Ministry of Finance, etc.--were not developed "from scratch," but rather were modeled on already-existing economic policy institutions in other countries. Mexican economics, like Mexican economic policymaking, was indeed modeled after internationallly legitimate standards of expertise and practice. The UNAM economics program may have produced *cardenista* nationalists, but these *cardenista* nationalists had been taught the works of a standard canon of classical western economists (such as Smith, Marx, Ricardo) and not the works of indigenous Mexican authors.

Thus, the case of Mexican economics does lend some support to the world-cultural theory of isomorphism through transnationally-shared standards of legitimation. The Mexican government institution where international standards of economic expertise were probably adhered to most closely was the Central Bank (Banco de México). Frequent contact with its organizational counterparts in other countries meant that the Banco de México was highly attuned to the techniques and professional standards of Central Banks around the world, which it emulated. As part of its commitment to international standards, beginning in the mid-1940s the Banco de México had a scholarship program for sending its personnel to study abroad, many of whom studied economics: this was the first large-scale program for foreign postgraduate study in Mexico.

The Banco de México supported the development and internationalization of Mexican economics in manifold ways, including its scholarship program, and its involvement in the founding and renovation of several Mexican economics programs, including the Colegio de México and the University of Nuevo León (Interview, Urquidi 9/19/95; Interiew, Solís 8/6/96). Perhaps the most historically significant of these renovations, however, was the least official: namely, the involvement of central bank officials in the remaking of the ITM (which had recently become officially autonomous, and was thereafter known as the ITAM) into an essentially American-style program--the perfect launching-pad for future generations of foreign-trained technocrats.

The Americanization of the ITAM can ultimately be attributed to the efforts of two of its graduates, who subsequently became Banco officials, and studied abroad with Central Bank scholarships. In succession, both served terms as directors of the ITAM economics program in the mid-1960s and early 1970s. Under the directorship of Gustavo Petricioli, who had studied at Harvard, and Francisco Gil Díaz, who had studied at Chicago, the ITAM program became much more rigorous and highly mathematized, and the faculty came to include more Central Bank officials and economists who had studied abroad. These professors--including Directors Petricioli and Gil--helped their students obtain positions at the Central Bank and admission to foreign economics programs, where they were financed both by the Central Bank scholarship program and through other programs. The international orientation of ITAM-style economics often won overt signs of approval from foreign organizations. For example, during the 1970s and 1980s, Fulbright scholarships awarded to Mexicans went disproportionately to economists, and of those economists overwhelmingly to graduates of the ITAM. As a result, by 1976 the University of Chicago was the single most important destination for ITAM graduates pursuing postgraduate study abroad, and the two most-cited theoretical authors of 1976 theses were Gary Becker and Milton Friedman.[10]

The role of the Mexican central bank in the internationalization of the ITAM economics program constitutes powerful evidence of the domestic legitimacy of international standards of economic expertise in Mexico--at least within the "organizational field" of central banking. Another piece of evidence supporting the domestic legitimacy of these standards is the funding that was available for foreign postgraduate study in economics after 1970 through the National Council on Science and Technology (CONACYT). Founded for the general purpose of supporting economic development through funding for higher education, the Council has provided extraordinary opportunities for Mexican economists to study abroad: in 1995 alone, 194 Mexican students were studying abroad with Science and Technology funding (CONACYT

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10 It is important to point out this Chicago-School bias was only a phase in the ITAM's history, a byproduct of Director Gil Diaz's Chicago training. After Pedro Aspe assumed the Directorship of the ITAM economics program in 1978, MIT became more popular, both as a source of citations and as the graduate program of choice.

1995). Indeed, graduates of this scholarship program were so obviously prominent among the neoliberal reformers of the 1980s and 1990s that former Chicago professor Arnold Harberger has called the Council "a secret weapon without which Mexico's economic transformation would never have been accomplished" (Harberger 1996:311).

Thus, to a great extent, the internationalization of Mexican economics has been a voluntary process based in the actions of domestic agents situated within a "rationalized world culture" of commonly-held standards of economic expertise. In Mexico, internationalized economics was not simply a coercive imposition of external actors.

. Nevertheless, the rise of foreign-trained economists in the Mexican government has also reflected power and resource inequalities between developed and developing countries--inequalities that gave rise to a more "coercive" process of isomorphism. There are at least two alternative ways of viewing the resource dependence of developing countries. One is the dependency theory approach, which sees developing countries as permanently trapped in their subordinate role in the world economy (Evans 1979, Cardoso and Faletto 1979). An alternative approach, is to view dependency as variable within the constant of core-periphery relations. Developing countries have been more dependent on external resources at some times than others, and subject to greater and lesser international pressures during different historical periods.

The historical importance of these kinds of fluctuating pressures is suggested powerfully by Drake's (1994) collection of essays on the history of "money doctoring" in Latin America. The original "money doctor" was Edwin Kemmerer, a Princeton economist who travelled the globe during the first decades of the twentieth century giving advice on monetary policy to the governments of developing countries; other such foreign financial advisers existed, but Kemmerer was undoubtedly the most famous. In keeping with the conventional wisdom of his day, Kemmerer told his clients (which included Colombia, Peru, China, and Bolivia) to set up independent central banks, to practice fiscal and monetary rectitude, and to adhere to the gold standard.

Why were the governments of developing countries so eager to invite Kemmerer to give such unwelcome and predictable advice? As Kemmerer himself observed, "a country that appoints American financial advisers and follows their advice in reorganizing its finances, along what American investors consider to be the most successful lines, increases its chances of appealing to the American investor and of obtaining from him capital on favorable terms" (Kemmerer quoted in Eichengreen 1994:111). In an era of highly globalized financial markets, Kemmerer's approval gained the confidence of foreign investors, and access to new loans at more reasonable interest rates; as a result, many countries voluntarily submitted to being "Kemmerized" (as the practice was popularly known). Thus, whereas colonialism had been characterized by the control of underdeveloped countries through brute force, Kemmerer was the prophet of a new era in which low-income nations were controlled through professionalism, or the advice of experts, backed by the reward of investor confidence or the punishment of capital flight (Rosenberg and Rosenberg 1994).

During historical periods when pressures on LDC governments are high, it makes sense for these governments to conform to the demands and standards of powerful external actors. Unfortunately, there is no single reliable quantitative measure of international pressures on the government of Mexico (or any other developing country) to show how they have waxed and waned over time. This is because such pressures are complex and multifaceted, and tied to a number of factors that cannot be modeled quantitatively. One frequently-used proxy for resource dependence, for example, is the ratio of a country's debt to its GDP. However, debt/GDP ratios and the resource dependence they reflect do not fully encompass the notion of external pressure.

One reason why debt/GDP ratios do not fully express Mexico's susceptibility to external pressures is that they do not encompass the notion of conditionality, defined by Kahler (1992) as "The bargains struck between...private creditors, national governments, international financial institutions (IFIs)...and national governments" (p. 89). Sometimes external actors with resources drive hard bargains with Third World governments: conditionality is high. In contrast, when conditionality is low, Third World countries acquire external resources on easier terms. Conditionality is a key intermediate factor for understanding how resource dependence affects the behavior of dependent actors, whether they are individuals or governments. To take an everyday example, a college student who regularly receives checks from home is dependent on external resources, but such dependence only changes her behavior if the checks are conditional on an A-grade-point average, or upon spending her summers working for the family business, or some other prerequisite.

Thus, to capture the notion of Third World government subjection to external pressures, we must simultaneously incorporate the notions of the *flow* of external resources to developing countries, and their *conditionality*. Conditionality must be measured both quantitatively, in terms of interest rates, and qualitatively, in terms of the degree to which resources are tied to certain behavior or policies.

TABLE 2: Mexican Public External Debt/GDP Ratio, 1940-1982*

Post-Cárdenas 1940-54		Stabilizing Development 1955-70		Populism 1971-82	
Year	Debt/ GDP%	Year	Debt/ GDP%	Year	Debt/ GDP%
1940	44.8	1955	10.8	1971	12.6
1945	15.3	1960	10.4	1972	11.3
1950	14.0	1965	10.9	1973	12.4
		1968	12.3	1974	13.8
		1969	12.7	1975	16.5
		1970	12.7	1976	22.5
				1977	28.3
				1978	25.3
				1979	21.9
				1980	18.2
				1981	22.2
				1982	36.5

*Source: Gil Díaz 1984.[11]

[11] To obtain a longer series, Gil Díaz utilized a indirect measure for public sector external debt (utilizing balance-of-payments flows added to or subtracted from a base debt from 1970). As I discovered, the reason Gil Díaz chose to measure Mexico's public sector debt in this way is that series data usually present only total external debt, without breaking it down for public and private sector. Rather than risk obtaining incomparable results, I decided not to try to duplicate Gil Díaz's series for 1983-95.

Table 3: International Financial Pressures on Mexican Government, 1940-present

	1929-1954	1955-1970	1971-1982	1983-present
Policy Era	Founding of Mexican Economics	Stabilizing Development	Populism	Neoliberalism
Dependence on External Resources	Low	Moderate	High	High
Conditionality of External Resources	Low	Low	Low	High

Like the history of "money doctoring" in Latin America, the history of Mexican economics in general--and foreign-trained economists in the Mexican government in particular--has reflected both Mexico's dependence on external resources, and the conditionality of these resources; these changing circumstances are outlined in Table 3. The period during which Mexican economics was founded was, in retrospect, a time when the Mexican government was extraordinarily independent from the demands of foreign actors. The stock market crash of 1929 brought about the collapse of global financial markets, and the widespread default of developing countries on their foreign obligations. In the 1930s, there existed no international financial institution (like today's IMF) capable of coordinating the claims of creditors and making developing countries pay: they simply suspended payment, and international lenders simply stopped lending to them; external borrowing in Latin America would not again reach the level of the 1920s until fifty years later. Mexico went in and out of default throughout the 1920s, and remained in default from 1932 until 1942, when Mexico began negotiations with its creditors under the auspices of a U.S.-led initiative (Eichengreen 1994:122-23, Aggarwal 1989:148). The resulting agreement was extremely favorable to Mexico, in part because of U.S. concern with maintaining Mexico as an ally during World War II. The result was a dramatic reduction of Mexican bonded debt--the debt for which government securities were issued--to less than 10 percent of its original sum (Aggarwal 1989:148, Bazant 1968:214-21). In the context of World War II and the deglobalization of financial markets, the Mexican government was in a position to make demands of the industrial powers rather than the reverse: conditionality and external pressures on Mexico were extremely low.

Independence from international pressures was reflected both in the policy making agenda of the Cárdenas administration (1934-40), and the nationalist and even socialist-sounding rhetoric of the first decade of the UNAM School of Economics. Cárdenas nationalized the foreign-owned oilfields, and emphasized the consolidation of popular support rather than the promotion of foreign investor confidence. During the 1920s and 30s, neoclassical economists were flourishing in both England and the United States (cf. Yonay 1998). However, the decidedly *cardenista* UNAM School of Economics selected among international standards of economic expertise for the most congenial authors; Marxist and socialist rather than neoclassical rhetoric prevailed among the earliest UNAM economics theses.

The period of relative autonomy from global financial markets ushered in by the Great Depression was gradually ended by the construction of a new postwar financial order with the United States at its captain, and new global financial institutions--especially the World Bank and the IMF--as its lieutenants. The new postwar international economic order made foreign-trained economists important assets for the governments of developing countries. As Vernon observed in his study of Mexican economic policymakers in the early 1960s,

> ...the increasing flow of communications between nations and with international agencies on [economic] subjects has demanded that every country develop a class of responsible officials which is capable of holding up its end in the interchange. In Mexico the economic technician has become an integral element in the decision-making process on issues affecting Mexico's development (Vernon 1963: 136).

During the postwar, the governments of developing countries were offered resources by organizations such as the World Bank and the IMF in exchange for compliance with certain policy prescriptions. In addition to mostly being fluent in English and the language of economics, many of Mexico's técnicos had employment histories in international organizations, and thus had the advantage of personal networks with foreign officials and inside information.

The peso devaluation of 1954 was a landmark in Mexican economic policymaking, both marking the beginning of a period of increased reliance on external borrowing, and giving rise to Mexico's first IMF loan and structural adjustment package. It seems significant that Mexico's first top economic policymaker with foreign graduate credentials in economics--Raúl Salinas Lozano, who became Minister of Commerce in 1958--came to office only a few years after Mexico's devaluation and consequent IMF standby arrangement. From 1954 to 1958, Salinas Lozano had been Direcor of the National Investment Commission, which had been created under the joint recommendation of the Mexican government and the World Bank, and which gave Salinas Lozano a working familiarity with the staff of international development agencies. Even more significantly, from 1956-58, Salinas Lozano had served as an alternate governor of the IMF (Camp 1995).

Thus, while the Mexican government used foreign-trained economists as critical intermediaries in the search for foreign resources, these economists used their sought-after foreign credentials as a means of acquiring more prestigious and important jobs; foreign credentials were utilized as tools serving both individual and organizational ends. Over time, the handful of foreign-trained economists of the 1950s swelled to a sizeable group, which rose to the top of the economic policymaking bureaucracy. The training of these economists came from diverse sources, from scholarships from foreign graduate programs, to financing for foreign training offered by the UNAM starting in the 1960s.

However, Mexico's need to comply with the demands of external actors during the stabilizing development period (1955-70) was apparently limited both by the small *extent* of its dependence on foreign resources, and their lack of *conditionality*. Table 2 shows that Mexican external debt relative to GDP was actually maintained at a quite moderate level until the lending boom of the 1970s. This relatively low level of external indebtedness was partly due to the fact that during the 1960s Mexican investment was increasingly financed through the growth of domestic savings--encouraged by the simultaneous occurence of economic growth and monetary stability (Thompson 1979:148).

At the same time, Mexican indebtedness during the post-1954 period was accompanied by a relatively low level of conditionality. The IMF standby loan of 1954 was accompanied by structural adjustment measures, but was repaid within a few years. The World Bank--Mexico's largest multilateral/bilateral creditor by 1965--would not begin its era of policy-based lending until the 1970s.[12] Most importantly, the bulk of Mexican external debt during stabilizing development was to private sources (more than 70.9% of all borrowing in 1965) (Thompson 1979:175). Far from attempting to impose their policy preferences on the Mexican government, by the late 1960s private lenders were competing for the privilege of having politically and monetarily stable Mexico as a creditor: Mexico had aquired the Third World's highest credit rating and was able to aquire loans on nearly First World terms (Thompson 1979 174-85). Thus, it seems that although external pressures on Mexico during the stabilizing development period were greater than they had been in the decades following the Depression, they were quite moderate.

In contrast, the 1970-1982 period represents a strange hybrid, during which the flow of external resources was enormous, but their conditionality relatively low. In general, the 1970s were a decade of immoderate lending by international banks and foreign investors, and immoderate external borrowing in Latin America and other parts of the Third World. As Frieden (1991) shows, although the destination of foreign loans was determined by domestic politics, as a more general phenomenon, heavy external borrowing was determined by international factors. These factors included the reglobalization of financial markets through a growing offshore banking sector (which eluded national banking regulations), and the glut of "petrodollars" from oil-exporting nations, which gave banks a surplus of investable funds.

During the presidencies of Echeverría (1970-76) and López Portillo (1976-82), Mexican government debt increased enormously (see Table 2). Whereas Echeverría's spending tended to go toward social and educational projects, the López Portillo deficit was largely used to finance the growth of the Mexican oil parastate company PEMEX, at a time when important new petroleum deposits had been discovered, and world oil prices were rising rapidly. During the 1976-82 period, the rapid growth of Mexican foreign external debt was offset by rapidly increasing oil revenues, as illustrated by Table 4. Although a devaluation and IMF standby loan in 1976 required the Mexican government to implement structural adjustment measures, these attempts by the IMF to increase loan conditionality were undermined by the free availability of foreign financial resources, as well as the enormous revenues that the Mexican was receiving through petroleum sales. Because of the oil boom, Mexico was able to pay off its IMF loan of 1976 in advance (Teichman 1988:65).

Table 4: Petroleum and the Mexican Economy, 1976-82*

	1976	1977	1978	1979	1980	1981	1982
Crude oil exports 1000's B/day	94	202	365	533	828	1,098	1,492.1
Petroleum and products % total value exports	16.8	22.4	29.7	43.8	67.4	74.4	73.6
% Total taxes paid by PEMEX	5.0	8.3	9.6	13.8	24.0	24.9	47.3

*Source: Teichman (1988).

12 In reviewing World Bank lending to Mexico in the mid-1950s, Thompson (1979) shows that the World Bank "implied" that its support was contingent on Mexico's adoption of sound financial policies, he also concludes that these proposed requirements "...were probably not inflexible. Considering the close and developing relationship between Mexico and the World Bank, the essential requirement was that Mexico convince the World Bank that its policies were sound from the points of view of development and stability" (p. 117).

Mexico's increasing dependence on external financing during the 1976-82 period put a premium on foreign economics credentials, leading to the further consolidation of the position of foreign-trained economists in Mexican economic ministries. Centeno (1994) claims that the debt-financed government spending of the 1970s favored public administrators with an understanding of finance, an area of expertise dominated by foreign-trained economists in Mexican public administration.

However, there was substantial variation among these foreign-trained technocrats. Some of them were fiscal and monetary conservatives, who tended to have studied in the United States; others with a more nationalist and interventionist point of view often had done their postgraduate studies in England. During the late 1970s, when external resources to the Mexican government were relatively abundant and free of conditionality, and oil revenues were at an all-time high, foreign-trained economists from the far left of the developmentalist consensus--the "structuralists" mentioned by Mexican political scientists (cf. Basañez 1991, Villarreal 1984)--came to hold important policy-making positions (Heredia 1996:104).

While the more conservative policymakers remained in control of the Ministry of Finance and the Banco de México, the more radical group found institutional homes within sectors of the Ministry of National Resources (which was in charge of the rapidly-expanding parastate industries) and the Secretary of the Presidency. These economists included José Oteyza and Carlos Tello, both of whom had pusued graduate studies at Cambridge University--a well-known center of Keynesian thinking In general, the emphasis of these officials was on "deepening" Mexico's process of import substitution, and accelerating Mexico's economic growth, even at the cost of inflation (Teichman (1988) has referred to them as the "quasi-populist tendency" within Mexican public administration (p. 94)). Conflict among these different tendencies became most intense during the López Portillo administration, when the more radical economists effectively blocked the effort of more conservative technocrats to move toward trade liberalization (Heredia 1996:108-141). When López Portillo nationalized Mexico's private banking system in 1982, it was Tello (the architect of the nationalization plan) whom he placed at the head of the Mexican central bank.

In general, however, it is worth noting that these leftist economists were never (with the exception of Carlos Tello's brief tenure as central bank director) at the head of the Mexico's four most central economic policymaking institutions: the Commerce Ministry, the central bank, the Finance Ministry, and the recently-created Ministry of Budget and Planning. The latter three of these ministries were dominated both by more conservative, inflation-conscious developmentalists of the sort that had prevailed in the 1960s, and increasingly by a younger generation of U.S.-educated economists who would turn out to have views quite antithetical to developmentalism. Had Mexico not been increasingly dependent on the goodwill of the IMF and private foreign lenders during the 1970s, perhaps the more radical developmentalists would have been allowed to take charge of the Finance Ministry and the central bank. As it was, however, Mexico's insulation from international pressures during this decade was conditioned by its extreme reliance on external financing: dependence on external resources kept populism from ruling throughout Mexican public administration.

The years 1981-82 marked a major reversal of Mexico's economic fortunes, and a dramatic increase both in Mexico's level of external dependency, and the conditionality of the resources on which it depended. Toward the end of the López Portillo administration, rapid increases in government spending led to accelerating inflation and capital flight. By 1981, these problems were compounded by a fall in world oil prices, and rapidly-rising global interest rates, leading to a dramatic increase in Mexico's short-term external debt (Kraft 1984: 34-5).

Meanwhile, international political changes had occured that would have a critical affect on Mexico's policy options, dramatically increasing the conditionality of external resources. It is well known that the policies that Reagan promoted at home were actually much more Keynesian than the free-market ideology that his administration espoused officially. In developing countries, however, the U.S. government pursued a policy agenda which was much more doctrinaire, and which was facilitated by the outbreak of the debt crisis in 1982. From the very outset of the crisis, this opportunity was recognized and exploited: the initial rescue plan coordinated by U.S. Treasury Secretary James A. Baker III offered debt rollover in exchange for the adoption of market-oriented and investor-friendly policies by developing countries (Miller 1986:16).

The World Bank also underwent important changes. With Reagan in office, the new World Bank director Tom Clausen appointed University of Minnesota economist Anne Krueger as the World Bank's chief economist. Krueger was a well-known theorist of the harmful "rent-seeking" effects of protectionism in the Third World, and a vociferous advocate of free trade. Although the World Bank's "structural adjustment loans"--loans conditioned on the implementation of policy reforms--were a legacy of the McNamara directorship, it was during the administrations of Clausen and his Reaganite successors that these loans became a tool utilized repeatedly for the promotion of market-friendly policies in developing countries (George and Sabelli 1994:58).

Changes in both Mexico's level of resource dependency and the international context within which Mexico was situated would have consequences both for Mexican economic policymaking, and for the profile of the officials who made Mexican economic policy. In particular, the debt crisis of 1982 brought about the definitive ascent of foreign-trained economists to the pinnacles of power, and helped promote weeding-out of the more leftist foreign-trained economists, in favor of more conservative, free-market promoting technocrats.

Although nobody can say with absolute certainty why López Portillo chose de la Madrid to be the official PRI candidate in September of 1981, it almost surely was a measure designed to inspire the confidence of bankers and investors. De la Madrid was described in the foreign business press as "a technocrat, adept at modern economics but out of touch with Mexico's revolutionary traditions," "a friend of bankers and businessmen," and "a liberal capitalist, not a revolutionary firebrand" ("The New Hero" 1981: 68; "Mexico's New Man 1982: 14).

In deference to the incoming president, two top-level economic policymakers were appointed even before de la Madrid's accession to the presidency. One was Finance Minister Jesús Silva Herzog, Jr., the son of the famous co-founder of the UNAM School who had a Masters' degree in economics from Yale University. In terms of ideology, Jesús Silva Herzog, Jr. differed radically from his father, and had a reputation for prudence and conservatism leading the *Economist* magazine to remark that he seemed to be "...more popular with the New York bankers than he is with some of the folks back home" ("Mexico's Happy Creditors" 1984: 60). De la Madrid's other pre-presidential appointment was central bank director Miguel Mancera, an ITAM graduate, also a Yale MA in economics, and a conservative central banker to the core.

The intervening months between de la Madrid's selection as candidate in September of 1981 and his ascension as President in December of 1982 were marked by the blossoming of Mexico's debt problems into a full-blown debt crisis, and an extraordinary and fascinating struggle between different camps of government economists with similar foreign credentials, but very different ideologies. On one side were "radical" economists inspired by developmentalism and its more radical cousin, dependency theory--most importantly, Carlos Tello, formerly director of the Ministry of Budget and Planning (and briefly head of the central bank), and José Andrés de Oteyza, the Minister of National Resources. Both had studied at Cambridge University. On the other side were the more orthodox, Yale-educated economists, Jesús Silva Herzog and Miguel Mancera, along with their numerous allies within Mexican public administration.

The battle between the Yale and the Cambridge economists came to a head over how to deal with Mexico's external debt crisis. On August 18, 1982, Mexican Finance Minister Jesús Silva Herzog informed the U.S. government, the IMF, and the world financial community that Mexico would be unable to meet its debt payments. To negotiate with the banks, the IMF and the U.S. government, Mexico put its best foot forward: a team of English-fluent, foreign-trained technocrats whose close personal connections within international financial circles were an important asset,[13] including Silva and Mancera, as well as José Angel Gurría and Alfredo Phillips Olmedo (Kraft 1984: 5).

After initially declaring its inability to pay, Mexico faced the critical choice of whether to attempt to meet its obligations to its creditors, or to default. For Jesús Silva Herzog, a Yale M.A. who had spent his formative professional years at the Mexican central bank, the latter course was not an option: Mexico would behave as a responsible debtor. Silva began immediately to steer Mexico toward a negotiated settlement with the banks, for which he would have to enlist the support of the U.S. Treasury, Paul Volcker of the Federal Reserve, the Bank for International Settlements, and--most importantly--the International Monetary Fund. In order to meet its obligations, Mexico needed bailout funds from the U.S. Treasury and IMF, both of which demanded uncomfortable concessions in return for their support: the U.S. Treasury wanted to buy Mexican oil at a heavy discount (the equivalent of a loan at over 30 percent); the IMF, on the other hand, wanted Mexico to commit to the usual package of structural adjustment austerity measures. The oil deal was finalized over the objections of Oteyza, and with bitter criticism from Mexico's left opposition press (Kraft 1984: 15-16).

But it was the IMF deal that was the most difficult for the leftist economists to swallow. The widespread capital flight preceding the debt crisis was diagnosed by these economists as a effect of the exaggerated ease with which the rich could move their capital out of Mexico. As a remedy, Oteyza and other like-minded Mexican economists advised the imposition of capital controls. These controls were thoroughly opposed not only by the IMF, but also by orthodox Mexican government economists like Silva and Mancera; in an overt sign of disagreement, in 1982 Mancera published a pamphlet entitled "The Disadvantages of Capital Controls." The leftist economists also advised the nationalization of the Mexican banking system--an idea which must have particularly appalled Mancera as a traditional and conservative central banker. On August 31, 1982, López Portillo took their advice and signed capital controls and the nationalization of the Mexican banks into law; at the same time, Mancera was deposed as head of the central bank, and Carlos Tello put in his place (Kraft 1984: 38).

Whether or not these heterodox measures were the correct solution to Mexico's problems, they direcly contradicted Silva's strategy of committing to debt repayment and compliance with

13 For example, one of Mancera and Silva's former professors at Yale was a director on the board of the Federal Reserve. Paul Volcker, the Federal Reserve's Chair, was also familiar with Silva and Mancera from previous Mexican debt negotiations, and would become a crucial intermediary between Mexico, on the one hand, and the IMF, U.S. Treasury and private banks, on the other (Kraft 1984: 8).

the requirements of foreign governments and international financial institutions. López Portillo's decree represented a severe setback for Silva's negotiations with the IMF; matters were made even worse by the fact that Tello had replaced Mancera on Mexico's negotiation team. But Tello was isolated, and the policies he favored were opposed not only by Silva, the IMF, and foreign negotiators like Paul Volcker of the Federal Reserve, but were also precluded by the harsh fact that Mexico's funds were running out: unless Mexico was willing to default on its debt, it would have to accept the IMF's terms, which Volcker also required as a precondition for his ongoing intermediation on behalf of Mexico with private banks.

Tello attempted to hold his ground in negotiations with the IMF, insisting on exchange controls, a generous wage policy, and high government spending; rumors abounded that he was attempting to strengthen his position by entering into a debtors' cartel with Argentina and Brazil (Kraft 1984: 44-5). However, IMF negotiators knew Tello was outnumbered on the negotiating team, and that de la Madrid's ascension to the presidency would solidify their position. On November 10, 1982, Silva announced the terms of the IMF deal: Mexico was committed to cutting the budget deficit from 16.5 percent of the GNP in 1981 to 8.5 percent in 1983; to drastically reducing foreign borrowing; and to lower government subsidies dramatically (Kraft 1984: 46). On December 1, 1982, Miguel de la Madrid assumed the Mexican presidency: Oteyza was replaced by a new Minister of National Resources, Mancera was reinstated as central bank director, and Silva was kept on as Minister of Finance. The IMF and the fiscal and monetary conservatives within the Mexican government had won.

The stage was set for the next phase of Mexican post-debt crisis policy: structural adjustment was now to be followed by deeper and more long-term liberalizing reforms. However, the economists and other officials in the de la Madrid cabinet were by no means unanimously convinced of the desirability of a broader liberalizing program. De la Madrid himself is described by Heredia (1996) as a "liberal developmentalist" of the sort that abounded in Mexico--particularly in the central bank--during the 1950s: although fiscally and monetarily conservative, these individuals also firmly believed in the necessity of state intervention to promote development, including such measures as import substitution to protect domestic industry (p. 159). The officials in de la Madrid's administration shared in common a similarly conservative position with respect to policy toward Mexico's creditors and the IMF.

On the issue of free trade, however, there were deep disagreements among the conservatives. Until the mid-1980s, de la Madrid put forward a moderate policy of gradual and selective opening to free trade, similar to a policy originally attempted in the 1960s (Heredia 1996:201-2). But later, disagreements developed regarding the speed and depth of the trade opening: on one side were the "liberal developmentalists" within the Ministry of Commerce, and on the other the "free traders" in the Mexican central bank. Commerce Minister Héctor Hernández Cervantes was a graduate of the UNAM economics program who had done his graduate work at the University of Melbourne in Australia rather than in the United States. Hernández advocated only gradual and selective opening to international free trade, and was generally in favor of an active state in a mixed economy. At the same time, there existed a small group of radical rent-seeking protectionists within the Ministry, whose position undermined the credibility of Hernández and his team (Heredia 1996:170-72).

On the opposite end of the debate was a younger generation of foreign-trained officials at the Banco de México who were much more fervent believers in market forces than fiscal conservatives and old-style liberal developmentalists. The most important of these was a brilliant young University of Chicago graduate named Francisco Gil Díaz--the same Gil Díaz who as director of ITAM economics had helped remake it into a center of U.S.-style neoclassical economics in the 1970s. Gil Díaz had numerous U.S.-trained allies outside the Banco de México, including Pedro Aspe of the ITAM and the Budget and Planning Ministry, and Jaime Serra Puche of the Colegio de México. At the same time, the President's Office of Economic Advisors brought together yet another team of U.S.-trained economists to support free trade ideas, which included Chicago-trained Herminio Blanco.

The Ministry of Finance occupied an intermediate position between the Banco de México and the Ministry of Commerce, since it was divided between officials who supported free trade and those who opposed it. But in 1985, an administrative reform eliminated two subministries, and created a new subministry headed by Pedro Aspe; later, in 1986, Silva resigned (for internal political reasons). These developments, according to Heredia, pushed the Finance Ministry into the free trade camp: Silva's successor as Finance Minister was Gustavo Petricioli, the man responsible for the renovation and Americanization of ITAM economics in the mid-1960s, who brought in other free traders, notably Yale-educated Jaime Serra Puche (Heredia 1996:168-9, 238-9).

The position of the free-market economists in Mexico was strengthened by the ongoing deterioration of Mexico's macroeconomic situation, which was accelerated by the earthquake of 1985 and the fall in oil prices of 1986, and which failed to improve despite the peso's radical devaluation--evidence, according to these economists, that Mexico needed to become more export oriented (Heredia 1996:173-80). Aided by their alliance with World Bank and IMF officials espousing similar policies--and opposed by Commerce Ministry officials and private sector interests--the free trade coalition within Mexican public administration prevailed. In 1984, the Banco de México began to disseminate policy proposals in favor of accelerated trade opening. A World Bank trade policy mission was sent to Mexico in November of 1984, which negotiated and collaborated closely with officials in the Central Bank and Finance Ministry; later that year, the World Bank granted Mexico the first "Trade Policy Loan" in the Bank's history, which provided Mexico with a series of loans in return for comprehensive trade liberalization. In March, 1985, a letter from Silva and Mancera to the IMF agreed to "a complete revision of trade policy," beginning with the replacement of quantitative import controls with tarriffs (Buchanan and Rhein 1985: 61). In 1986, the Reagan administration further strengthened the hand of international financial institutions and free traders within the Mexican government by announcing that it would not negotiate on Mexico's behalf with international banks unless Mexico "implemented substantive structural reforms," and arrived at a new agreement with the IMF ("Silva Lining" 1986: 81).

The 1980s and 90s witnessed the definitive ascent of economists to the pinnacle of Mexican economic policymaking--economists, moreover, of a particular ideological stripe. Whereas during the first forty-odd years of Mexican economics resource dependence was a contributing factor to the rise of foreign-trained economists in government, the extreme resource dependence brought on by the debt crisis resulted in a selection *among* foreign-trained economists in government: first, for the most fiscally and monetarily conservative technocrats, and later for those most likely to favor free markets and free trade.

Although the Brady debt negotiations of 1989 led to a substantial reduction in Mexican foreign external debt, the dependence of Mexico on foreign resources has remained extreme, and continues until the present day. Mexico depends heavily not only upon multilateral agencies like the IMF and the World Bank, but also on the confidence of foreign investors, who finance

Mexican balance of payments and ongoing debt payments.[14] The extreme degree of Mexican dependence on external resources was illustrated most recently by the peso crisis and devaluation of 1994-95, a debacle that led to the replacement of Yale-trained economist Jaime Serra Puche with Stanford-trained economist Guillermo Ortíz Martínez. Given Mexico's current situation with respect to its international creditors, it is difficult to imagine that foreign-trained economists will cease to play an important role in Mexican economic policymaking--even in the event of an opposition victory.

Conclusion

This paper has briefly reviewed the history of the rise of foreign-trained economists in the Mexican government; I have tried to show that the most recent appearance of economists at the highest ranks of Mexican economic policymaking is not an anomaly, but must rather be viewed as part of a much longer-term trend, in which foreign-trained economic experts used their abilities and credentials as assets in their ascent of the ladder of Mexican public administration. As with all professionals, Mexican economists' takeover of the state rested on a process of legitimation. But to whom were these credentials legitimate? I have argued that the legitimation of both domestic and international groups were important factors in Mexican economists' ascent. The vigorous domestic promotion of Mexican economics by domestic actors attests to the legitimacy of foreign standards of economic expertise among certain Mexican officials--particularly central bank officials. However, international pressures on the Mexican government were also important to the development of the profession of government economist in Mexico. Such pressures first helped foreign-trained economists ascend to new heights in the public sector, and later selected among top-level government economists to favor those most in line with the views of the organizations upon which the Mexican depended.

The complex combination of domestic acceptance of professional expertise and foreign pressures in the history of Mexican economists in government nicely parallels Rosenberg and Rosenberg's (1994) observations regarding the money doctors in Latin America around the turn of the century. First required of Third World governments at the turn of the century by U.S. State Department officials and the investment bankers who backed them, financial reform "experts" like Kemmerer were later voluntarily invited in the 1920s by the Colombian and Peruvian governments. Kemmerer's "mission's long working hours--often twelve hours a day--impressed hosts with the professionals' seriousness and dedication. The staggeringly high fees Kemmerer charged reinforced notions about the great value of his advice..." (1994:73). However, after the Depression of the 1930s made the costs of compliance to foreign standards higher than the benefits, the money doctors were vilified by many Latin American nationalist leaders as tools of U.S. imperialism.

The Mexican experience shows that whereas foreign "money doctors" may be used by Third World governments to help foster investor confidence, medium-income developing countries can also come to produce their own money doctors, utilizing foreign-trained natives in their negotiations with international organizations. The foreign-trained technocracies that get produced do not necessarily share a single vision. In underdeveloped countries with large and highly-developed corps of foreign-trained economics professionals, an increase in resource dependence may lead to a process of selection among available economics professionals in

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14 The link between technocracy and investor confidence in Latin America has been observed by Schneider (1997).

government, favoring those technocrats whose views conincide most closely with the views of officials from foreign governments and international financial institutions.

Perhaps the most interesting parallel between turn-of-the-century money doctors and the new Mexican technocrats is the similarity in the *content* of the advice that they give. Like the money doctors of yesteryear, the neoliberal economists are firm believers in monetary and fiscal rectitude, and were such fervent budget-cutters in the early 1980s that after 1983 there was actually a budget surplus--quite an achievement for a period of economic crisis (Lustig 1992:30). Although Kemmerer's beloved gold standard is no longer a viable option today, the Mexican technocrats prescribed the next best thing--legal central bank independence--which they achieved in 1993.

Most interestingly, the new Mexican technocrats have abandoned the discourse of economic development that prevailed after World War II, focusing on the achievement of free markets and free trade with the assumption that economic growth will naturally follow. This represents, in many ways, a return to the prevailing discourse among internationally-respected economists at the turn-of-the-century and interwar period. Like other mainstream economists of his day, Kemmerer "saw inflation and incovertible currencies as the primary evils within the world economic system...[and]...spoke little of promoting 'development' or 'modernization.' Instead he sought primarily to promote gold-based convertible currencies as the basis for a self-adjusting and self-regulating international economic trading and investment order" (Rosenberg and Rosenberg 1994:67). It is surely significant that during the Kemmerer period national economies were highly globalized, just like today: at the most general level, there seems to be a relationship between economic globalization and *laissez-faire* economic ideology.

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