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Old-age pension reform and modernization pathways: Lessons for China from Latin America

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Abstract

While numerous Western countries first experienced cultural rationalization, next economic modernization, and then faced the challenges of population aging and pension policy reform, both Latin America and China, in contrast, are dealing with these challenges in the context of much less developed economies and stronger traditional cultures. In this article we analyze old-age pension reform efforts in eight Latin American countries that have introduced funded defined contribution schemes with individual accounts. We are searching for insights about the potential success of similar reforms being implemented in China. All of these societies are organized primarily around the principles of family, reciprocity, loyalty and poverty. Our analysis suggests that these distinctive characteristics have important implications for the likely success of the reforms currently being implemented in China, particularly in four interrelated areas: coverage, compliance, transparency, and fiscal stability.

Keywords: Pension reform; China; Latin America; Social Security; Culture; Economy; Rationalization

1. Introduction

Latin America is a pioneer with respect to the shift from old-age pension schemes based on pay-as-you-go (PAYG) defined benefit models to schemes based all or in part on funded individual accounts. In 1981 Chile became the first nation to make the shift with the introduction of mandatory fully-funded privately managed individual retirement accounts (IRAs). Today there are 12 Latin American countries that have shifted to schemes influenced by the Chilean model (Gill, Packard, & Yermo, 2005; Kritzer, 2005).

On the opposite side of the earth, China is following a similar path, though the Chinese IRAs are currently publicly managed and remain largely unfunded (Jackson & Howe, 2004). Since 1995 China has introduced a number of reforms, the most important of which were promulgated in 1997 and 2000. By 2025, one quarter of the world's population aged 60 and over will be living in China (United Nations, 2005). For this reason the success or failure of the reform of China's old-age pension system will affect a major proportion of the world's elderly population (Williamson & Shen, 2004).

In many respects the reforms in China have not been working out as had been intended. The major problems faced by the old-age pension reform in Latin America appear again in the newly introduced reforms in China. These problems include low coverage and compliance rates, poor transparency, and serious fiscal difficulties.

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Our analysis tries to obtain insights about the potential consequences of reforms currently being introduced in China based on evidence from eight Latin American countries – Argentina, Bolivia, Chile, Colombia, El Salvador, Mexico, Peru and Uruguay – that introduced some form of funded IRAs (partial privatization) between 1981 and 1998. Four other countries – Costa Rica, the Dominican Republic, Ecuador, and Nicaragua – are not included because their reforms are so new, because they are not yet fully implemented, or due to the lack of information.

Many differences can be found between the Latin American countries, and perhaps even more between them and China. For example, Latin American countries have undergone a variety of political regimes, but none of them has been close to Chinese communism. Differences acknowledged, our analysis emphasizes the major cultural and economic factors shared by the countries analyzed. We argue that the eight selected Latin American countries and China are strong traditional cultures and low-income economies characterized by the centrality of: (1) the family, (2) reciprocal relationships, (3) rules of loyalty, and (4) poverty. Our analysis highlights the role of these factors in shaping the unfolding of the pension reform process with respect to four areas: (1) coverage, (2) compliance, (3) transparency, and (4) fiscal stability. The role of the cultural and economic factors considered in this article has been largely overlooked in the literature on pension reform. Much of this literature focuses on political factors, such as the welfare state, communism, and the World Bank policies (e.g. Esping-Andersen, 1996; Fox, 1997; Frazier, 2004; Myles & Pierson, 2001).

In this article our focus is on Latin America and China, but we find it essential to make some comparisons with the Western European nations. The latter will be characterized as rationalized cultures and affluent economies displaying centrality of: (1) the institutions supporting elderly, (2) individual financial planning, (3) legality, and (4) wealth. Although a detailed analysis of Western European countries is beyond the scope of this paper, the comparison has important advantages. A comparative perspective calls attention to the factors shared by Latin America and China. In addition, the Western European nations constitute a reference point that can be used to provide all observers with a common frame through which to assess the pension reform in Latin America and from which to speculate about some of the challenges China will face in connection with pension changes currently being implemented. But above all, the comparison to Western European nations helps to uncover some of the underlying assumptions of these pension reforms that do not entirely hold for Latin America and China. In a somewhat oversimplified formulation, these assumptions are: (1) preeminence of formal-institutional support systems of the elderly, (2) emphasis on individual responsibility for financial planning, (3) zealous attachment to the law, and (4) perception of old-age poverty as an isolated problem. Formulated in a more general way, we will argue that the reforms fail to account for some of the major cultural and economic characteristics shared by Latin America and China.

Fig. 1 and Table 1 provide a brief summary of a number of key points that we have briefly introduced above, but more importantly they also serve as guide to much of the analysis which follows.

2. Modernization pathways

Population aging and with it the associated problems of reforming the old-age pension systems are taking place around the world. However, the challenge of pension policy reform is context-specific. In Latin America and China, this challenge is framed in the context of a traditional culture and low income economy. This claim should be understood in relative or comparative terms: Latin America and China contrasted to the Western European nations.

In this section we will use the construct "modernization pathway" to describe broad historical transformations of the culture and the economy that precede the old-age pension reform and are common to a number of countries. We will consider two modernization pathways, one that fits a number of Western European nations and a second which better fits China and Latin America. Both can be viewed as Weberian ideal types (Weber, 1949, 1958). They are not meant to correspond to all of the characteristics of any particular country, but rather to highlight common elements that play an important role in the pension policy reform acceptance and effectiveness.

The Western Pathway is limited here to the Western European countries, though it may be – carefully – extended to a few Western countries outside Western Europe. Southern European countries (e.g. Spain, Portugal and Italy) are more culturally similar to Latin America and for this reason were excluded from the pathway described here. The United States was also excluded because its exceptionalism adds unnecessary complexity to the typology (Lipset, 1996). However, the United States shares many characteristics of the Western European nations and is also influencing the pension reform in Latin America and China, as proponents of

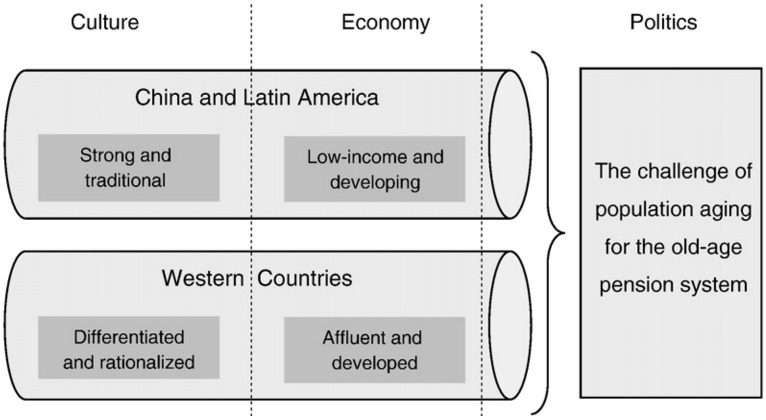


Fig. 1. The challenge of population aging for the pension system has come through dissimilar modernization pathways.

world system and dependency theories have pointed out repeatedly (Wallerstein, 2004).

Culture is one important domain where the Pathway of Latin America and China differs from the Western Pathway (Fig. 1). Latin America and China are both facing the challenge of population aging for their pension systems in the context of much stronger traditional cultures than found in the West. The Western Pathway, in contrast, is characterized by a deeply rationalized culture. According to Max Weber (1968) the process of rationalization tends to foster and to be associated with secularization and the view that everything is explainable by reason, at least in principle (Giddens, 1971; Kalberg, 1994; Lash & Whimster, 1987). In behavioral terms, rationality involves a second meaning: greater reliance on means-ends calculations designed to organize activity so as to more efficiently reach a particular goal.

One indicator of the level of rationalization in a society is a strong and uncorrupt formal legal system which fosters a social order based in large measure on laws, not just traditional cultural practices. Fig. 2 suggests that corruption levels are lower in Western European countries than in China and in most Latin American countries. Although a traditional culture may have a formal legal system, the social order may be less based on these laws than in Western countries (Sandholtz & Taagepera, 2005; Treisman, 2000). In China, for example, if there is a dispute between two families, rather than engage lawyers and courts, people may turn to spirit-mediums, respected in the community, familiarized with the parties involved and local history, and thus qualified to suggest solutions that are acceptable to both sides (Adler, 2002). Such evidence suggests that China and Latin America have not undergone as profound a rationalization process as have the Western European nations.

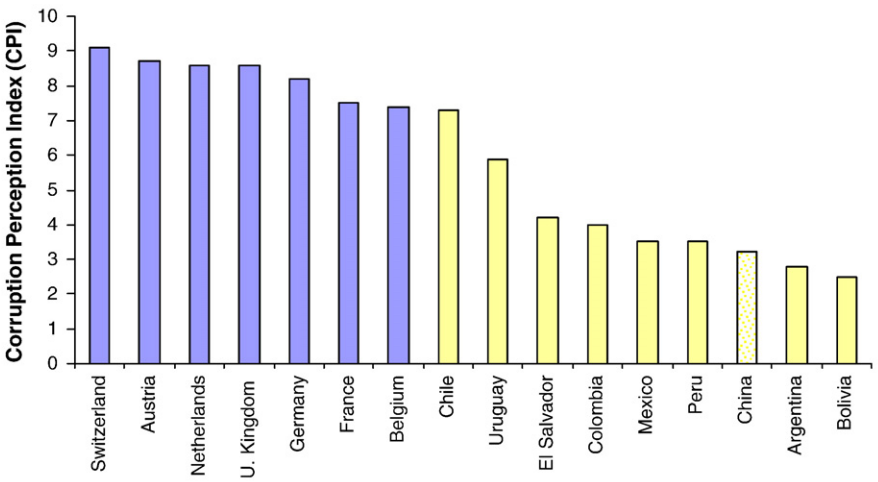
Economy is a second important domain where the Pathway for Latin America and China differs from the Western Pathway (Fig. 1). In contrast to Western countries, Latin America and China are also facing the challenge of rapid population aging before reaching high levels of national income. Despite rapid economic growth since the early 1980s, China is still a poor country. In 2001, more than 16% of the Chinese population was living on less than one dollar per day (World Bank, 2003). In Latin America, one-fifth of the total population lives in extreme poverty and almost half in poverty (ECLAC, 2004). Fig. 3 illustrates the recent trends in Gross Domestic Product (GDP) per capita of the Western Pathway in comparison to the trends for China and Latin America. While this data covers a very recent time period, it is consistent with and lends support to the Weberian idea that in Western Europe the rationalization process is followed by a prosperous capitalist economic development.

Summing up, only after becoming rational and affluent societies do the Western countries start facing the challenge of a rapid population aging and the associated need for pension system reform. Clearly this is not the case of Latin America and China, which have

Table 1
Modernization pathways and areas of challenge for old-age pension system reform

China and Latin America[1]	Western Countries	Old-age pension reform
Family (*xiao*)	Institutions	Coverage
Reciprocity (*chung*)	Individual Planning	Compliance
Loyalty (*zhong*)	Legality	Transparency
Poverty	Wealth	Fiscal stability

[1]The pinyin system of Romanization has been used for Chinese terms for Confucian virtues.



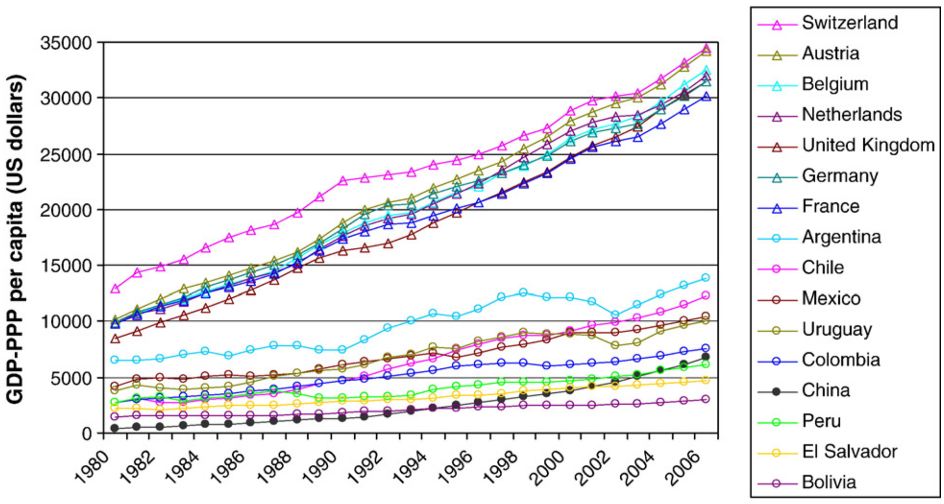
Note: CPI Score ranks countries according to experts' perception of corruption, and ranges between 0 (highly corrupt) and 10 (highly clean). China excluding Hong-Kong SAR.
Source: Transparency International 2005.

Fig. 2. Western countries are perceived as less corrupt than China and Latin America (Transparency International, 2005).

much stronger traditional cultures and have not yet reached the Western European level of economic development (Fig. 1). However, these distinctive characteristics have received little attention in the design of pension reforms or in efforts to evaluate the efficacy of these reforms in Latin America and China (Gill et al., 2005; Holzmann & Hinz, 2005; Mesa-Lago, 2005; Williamson & Deitelbaum, 2005; World Bank, 1994, 1997).

Many have argued that religion is one of the most important factors explaining the differences between Western Europe and China and Latin America (Cousiño 1990; Cousiño & Valenzuela, 1994; Morandé, 1984; Weber , 1951, 1963, 2002). Chinese Confucianism and Latin American Marianism – the Catholic adoration of the Virgin Mary – have been said to lack the elements central to the Protestant ethic that would bring about an early and profound rationalization process and capitalist development.

Max Weber posed the question: why did the modern West develop the way it did, and why did China not develop at the same time and in the same way as the West? He focused on a number of factors that distinguish European modernization from that of China arguing, for



Note: China excluding Taiwan Province and Hong-Kong SAR.
Source: International Monetary Fund, 2005.

Fig. 3. The western pathway is characterized by wealth (International Monetary Fund (IMF), 2005).

example, that Western European countries were characterized by the separation of the productive enterprise from the household, while China was organized on the basis of extended kinship clans (Weber, 1961). But the most important difference Weber (1951, 1963, 2002) highlights is that between European Protestantism and Chinese Confucianism. Protestantism is based on an ethic that prompts an active attitude to change the world and places an emphasis on the individual. Confucianism is an ethic of adjustment to the world; it accepts things as they are and promotes a contemplative, mystical and passive attitude that tends to prolong ancient traditions. In this sense, Confucianism lacks the active tension that exists between Protestant religion and the world. That is, it lacked a “mentality” or “moral energy” suited for the early emergence of modern capitalism and a rationalized social order.

Similarly to Weber’s comparison of Confucianism to Protestantism, Latin American Sociologists contrast Marianism with Protestantism (Cousiño, 1990; Cousiño & Valenzuela, 1994; Morandé, 1984). The “ethic” of Marianism is that of grace and mercy rather than individual merit and responsibility. Mary is viewed as a mother-like figure with compassionate attitude towards offenders and willingness to grant favors. She recompenses devotion with clemency and unmerited divine concessions. Accordingly, Marianism – as is the case with Confucianism – lacks the “moral energy” that would bring about a profound rationalization process and early capitalist development.

Note that this is an historical argument. Hence, we are not arguing that China or Latin America can not develop (or will not at some point in the future) a rationalized culture or modern capitalism; rather, we are arguing that they did not do so before and in the same way as the West. Actually, between the 1960s and 1980s, Latin America and China were actively trying to rationalize their cultures, though the results of these efforts were modest.

The rationalization efforts in China and Latin America were driven by the desire to emulate the Western countries and not the same differentiated culture that drove the rationalization process in Western Europe. We will use the term “differentiated culture” to refer to a culture in which people are confronted with conflicting world views (e.g., Protestant vs. Catholic) and contrast it with a traditional culture in which everyone shares basically the same world views and assumptions. A differentiated culture was found on Western Europe during the sixteenth century, when the Protestant Reformation and related religious controversies split the traditional Catholic unity of the region. A differentiated culture does not provide an adequate level of social integration and requires the creation of rational arrangements to assure social order (Cousiño & Valenzuela, 1994). In Latin America and China the rationalization effort took place in the context of a less differentiated culture and as a result the rationalization process has been less pervasive in these regions than in West.

For example, during the Cultural Revolution (1966–1976) the traditional culture was harshly attacked in China: temples were destroyed and Confucianism was declared an outdated ideology and popular religion mere superstition. However, starting with the 1980s there is widespread evidence of a strong revival of traditional religious practices and beliefs (Adler 2002; Lagerwey, 2004; Overmyer, 2003). Temples are being re-built and devotion to local deities continues to thrive. Festivals, rituals, dances, processions, communication with supernatural beings, *fengshui*, and popular medicine are now part of ordinary life for many Chinese people. Altars for ancestors and patron deities are found in many households. Confucianism remains at the core of the cultural unity of China, albeit more as an ethical philosophy or system of thought than as a formal religion. Similarly, Latin America has not experienced the level of cultural differentiation found in Western Europe. Latin American Sociologists argue that Latin American culture remains integrated by the values and norms underlying “Marianism” (Cousiño, 1990; Cousiño & Valenzuela, 1994; Morandé, 1984). Just to remind, these claims should be understood in comparative terms: Latin America and China are strong traditional cultures relative to the West.

It is also important to note that numerous factors other than religion may have influenced the modernization pathways. However, describing these factors goes beyond the scope of this article. The point that we want to stress here is the disparity between the modernization pathways of China and Latin America as opposed to Western Europe.

To summarize, for the countries under consideration there is a difference in the *type* of cultural and economic transformations that have preceded the challenge of rapid population aging and the associated need for pension reform. There has also been a difference in the *timing* of these processes. While numerous Western countries first experienced cultural rationalization, next economic modernization, and then faced the challenges of population aging and pension policy reform, both Latin America and China are dealing with these challenges in the context of much less developed economies and stronger traditional cultures (Fig. 1).

3. Pension reform in low-income traditional societies

Latin America and China both have traditional cultures and low-income economies. As defined here, a "traditional culture" is organized around three principles: family, reciprocity, and loyalty. In comparison, a "rationalized culture" is organized around institutions, planning, and legality. In this case the traditional cultures are also low-income economies characterized by poverty while the rationalized cultures are developed economies characterized by wealth (Table 1). Note that the separation of traditional and rational does not imply that traditional cultures are irrational. Conflicting principles can coexist in the same culture, but typically one has preeminence over the other.

Drawing evidence from Latin America, in this section we argue that the modernization pathway preceding the aging challenge in China will shape the challenge to the old-age pension system reform in four interrelated areas: coverage, compliance, transparency, and fiscal stability (Table 1).

Coverage: old-age pension institutions and family

The effects of the pension reform on coverage rates in Latin America have been largely discussed in previous literature (Arenas de Mesa, 2000; ECLAC, 2006; Gill et al., 2005; Jiménez & Cuadros, 2003; Mesa-Lago, 2004; Packard, 2002). There is not much agreement about what measure of coverage should be used. However, regardless of the indicator used, for most of the countries analyzed a substantial fraction of the population is left without coverage (Table 2). For a detailed discussion of the reason for the discrepancies between these various indicators see Rofman (2005).

As with Latin America, a large fraction of the Chinese population is left without coverage. About two-thirds of Chinese workers live in rural areas and in those areas only about 11% of these workers are covered by a formal-institutional pension system. Coverage goes up to 55% of the workforce in urban areas, although even this level of coverage is insufficient by Western standards. Overall, three out of four Chinese workers have no pension coverage at all (Jackson & Howe 2004).

It is generally agreed by most Chinese policymakers that it is not feasible at this point in time to extend coverage by the formal-institutional old-age pension institutions to the vast Chinese rural population, despite the high level of rural old-age poverty (Williamson & Shen, 2004). Based on analogous pension reform efforts in a number of Latin American countries, it does not seem likely that current reform efforts in China are going to substantially increase coverage any time soon (Arenas de Mesa, 2000; ECLAC, 2006; Gill et al., 2005; Jiménez & Cuadros, 2003; Mesa-Lago, 2004; Packard, 2002).

Today most Chinese rely heavily on family networks for support. According to the 2000 census data, about two-thirds of those age 65 and over live with their children (Table 3). This tendency is particularly strong for elderly women living in rural areas. The lack of formal-institutional pension coverage for most elderly Chinese and the evidence from Latin America suggesting that coverage may not substantially increase any time soon, leads us to the conclusion that in China

Table 2
In Latin America pension system reform has left a substantial fraction of the population without coverage [a]

Country	Coverage before the reform	Coverage after the reform	Other indicators of coverage after the reform		
	Contributors/economically active population (year)	Contributors/economically active population [b] (2002)	Contributors/employed persons [b] (2000–2003)	Contributors/wage-earners [b] (2000–2003)	Benficiaries/population age 65+ [c] (2000–2003)
Chile	0.64 (1980)	0.58	0.63	0.77	0.64
Argentina	0.50 (1994)	0.26	0.40 [d]	0.55 [d]	0.68 [d]
Mexico	0.37 (1997)	0.33	0.39	0.62	0.19
Uruguay	0.32 (1997)	0.45	0.65 [d]	0.79 [d]	0.87 [d]
Colombia	0.32 (1993)	0.18	–	–	0.19
Peru	0.31 (1993)	0.12	0.14	0.31	0.24
El Salvador	0.26 (1996)	0.22	0.32	0.53	0.15
Bolivia	0.12 (1996)	0.11	0.11	0.29	0.15

[a] Adapted from AIOS, 2005; Mesa-Lago, 2005; and Rofman, 2005.
[b] These measurements could overestimate coverage for workers doing sporadic contributions, or underestimate coverage for workers not doing contributions but covered by non-contributory pensions.
[c] This measurement could underestimate coverage for spouses of beneficiaries, for individuals who continue working and delayed the benefits, and individuals receiving non-contributive benefits.
[d] Information for urban areas.

Table 3
The majority of Chinese elders live with their children[1]

	Rural	Urban	Rural-urban combined
Males			
Living alone	8.7	7.7	8.4
With spouse only	26.3	33.7	28.8
With spouse and other, not with children	0.7	0.8	0.7
With spouse and children	36.5	39.0	37.4
With children, not with spouse	25.6	16.8	22.6
With others, not with spouse and children	1.9	1.3	1.7
Institution	0.3	0.7	0.4
Grand total	100.0	100.0	100.0
Subtotal of living with spouse	63.5	73.5	66.9
Subtotal of living with children	62.1	55.8	59.9
Females			
Living alone	9.8	12.4	10.7
With spouse only	17.9	21.3	19.1
With spouse and other, not with children	0.3	0.6	0.4
With spouse and children	22.8	21.7	22.4
With children, not with spouse	48.1	42.6	46.2
With others, not with spouse and children	0.9	1.0	0.9
Institution	0.2	0.4	0.3
Grand total	100.0	100.0	100.0
Subtotal of living with spouse	41.0	43.6	41.9
Subtotal of living with children	70.9	64.4	68.7

[1]Living arrangements for Chinese population aged 65 and over, rural urban comparison, year 2000. Adapted from Zeng & Wang, 2003.

family support is likely to remain the primary source of old-age security during the foreseeable future, at least in rural areas, where there is virtually no pension coverage.

On the other hand, the projected demographic change for China gives us reason to questions the efficacy of the traditional family support system for meeting the economic needs of tomorrow's Chinese elderly (Gubhaju & Moriki-Durand, 2003; Zeng & Wang, 2003). In 1970, the Chinese elderly were outnumbered by children six to one, but by 2040 there will be two elderly people for every child (UN 2003). This projected demographic change will place great strain in the traditional family support system and suggests that the need for old-age pensions is going to be increasing.

It is clear that the Chinese elderly will not be able to rely solely on family arrangements (Friedman, James, Kane, & Queisser, 1996; World Bank, 1997). Nonetheless, it is also true that family support networks will continue to play a very important role for many of the elderly. Examination of recent pension reform efforts in Latin America suggest that the family performs a crucial function as a source of support and protection for the elderly, given the limited coverage of the pension system in the region (ECLAC, 2004) and the centrality of the family in the Latin American culture. There is no reason to expect a different outcome in China. The Confucian ethic of filial piety (*xiao*) involves respect, obedience, gratitude and the obligation to reciprocate for parents having given us life and, in comparison to the Western countries, this ethic remains very strong in China (Gu & Liang, 2000; Sung, 2000). It has been motivating children to take care of their elderly parents for centuries and will probably continue to play a role for care for the elderly long into the future (Zeng & Wang, 2003), though increasingly in combination with formal old-age pension institutions.

The assumption made by some analysts that the family support system is going to break down places the Chinese case into a conceptual framework better suited to the Western Pathway. But that framework overlooks the fact that China continues to be a traditional culture and it limits policymakers to considering individualized ways to support retirees, relegating the family network of support to a secondary role in the policy debate about the reform.

Compliance: individual financial planning and reciprocity

Closely related to the coverage problem are low compliance rates and low contribution densities. One goal of the pension reform in Latin America has been to improve incentives for workers to participate in the system and to increase personal contributions to their funded accounts. A strengthened "equivalence principle" (a linkage between contributions and pension benefits) was expected to get workers to view their contributions as investments or savings rather than as a tax. This in turn was expected to increase the incentive for participating and contributing to the system (World Bank, 1994). However, the evidence from Latin American does not point to any such trend (Gill et al., 2005; Jiménez & Cuadros, 2003; Mesa-Lago, 2004; Packard, 2002; Rofman, 2005). Evidence presented in Table 4 shows that compliance rates have actually decreased in Latin America suggesting that IRAs are not having the expected impact on the incentive to contribute.

It is generally agreed both in Latin America and in China that some segments of the population are particularly reluctant to contribute. For example, workers in rural areas, workers in the informal sector of the economy, and low-wage workers choose savings options other than IRAs, such as housing and the education of their children (ECLAC, 2006; Gill et al., 2005; Kritzer, 2000; Mesa-Lago, 2004; Packard, 2001; Rofman, 2005).

Table 4
Compliance rates have declined in Latin America [a]

Country	1998	1999	2000	2001	2002	2003	2004	2005
Argentina	48.9	44.3	39.1	29.0	33.2	35.2	35.4	40.3
Bolivia	–	–	–	47.0	46.9	39.0	44.9	47.5
Chile	52.8	53.4	50.9	53.7	51.0	51.9	50.4	51.2
Colombia [b]	–	51.6	48.5	48.7	47.6	48.7	49.5	50.6
El Salvalor	67.2	63.8	53.5	53.2	47.6	46.3	41.9	39.5
Mexico [c]	63.4	60.2	57.9	44.7	41.7	39.3	38.8	37.6
Peru	45.6	45.7	41.7	41.2	39.4	41.9	39.9	36.2
Uruguay	67.4	58.7	53.9	53.2	45.1	52.7	52.5	55.7

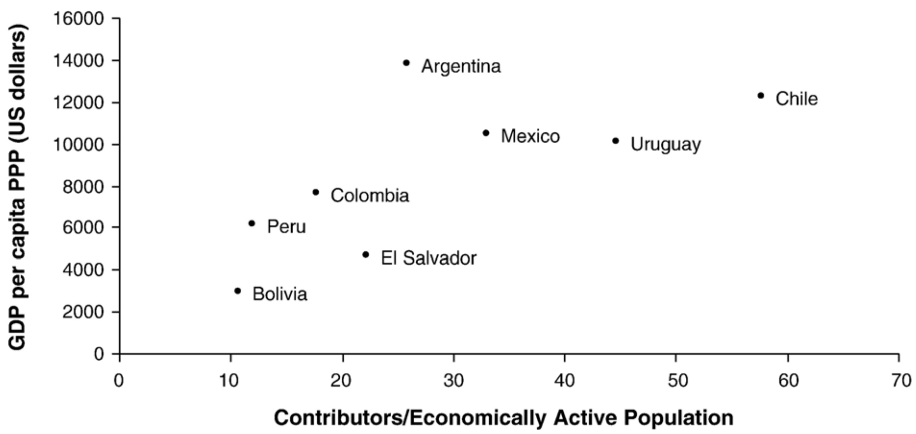
[a] Percentage of affiliates who contributed in the past month to IRAs, December 1998–2005. Source: Mesa-Lago, 2005; and AIOS, 2005.
[b] In 1993–2003 contributor was an affiliate who had at least one contribution in the last six months.
[c] In 1993–2003 contributor was an affiliate who had at least one contribution in the past two months.

Why might these groups avoid contributions to a reformed old-age pension system if it is clearly strengthened with respect to the equivalence principle? We will focus on explanations connected to the modernization pathway preceding the reform. One potential explanation is that individuals are “irrational”; not contributing to the IRA reveals a myopic behavior or short planning horizon (Valdés-Prieto, 2002). Here we offer an alternative explanation: the preference for the education of one’s children and housing over IRAs is a “rational” behavior for an individual in a traditional culture and in a low-income economy, where the family is a strong social unit organized around reciprocity and affected by poverty. What is considered rational in Latin America and China may not be considered rational from the perspective of the Western Pathway.

Numerous studies in Latin America conclude that contributing to the IRAs is too costly, particularly for low-income workers who struggle to meet immediate basic needs for survival and face the pressing consumption needs of their families (Barr & Packard, 2000; Gill et al., 2005; Jiménez & Cuadros, 2003; Kritzer, 2000; Mesa-Lago, 2004; Packard, 2002). In Fig. 4 we present aggregate data that points to a similar trend. We see that compliance rates tend to increase as GDP per capita increases, despite evidence of some variation between nations in similar GDP per capita ranges (e.g. Mexico versus Uruguay). At the cultural level, contributing to an IRA could disrupt the cycle of reciprocity inside a family. By investing in housing and childhood education, wealth is shared and transferred among generations in a permanent cycle of giving, receiving, and returning (Bataille, 1998; Mauss, 1967), a dynamic that assures family support at older ages. Summing up, in a low-income economy and a culture where reciprocity has primacy over individual financial planning, a strengthened equivalence principle is likely to have little impact on a worker’s propensity to contribute to the system.

As with Latin-Americans, the Chinese are severely affected by poverty and tend to show a lack of enthusiasm for IRAs (Zhao & Xu, 2002), but support for the principle of reciprocity inside the family (Bengston & Putney, 2000; Gu & Liang, 2000; Sung, 2000). Therefore, it is reasonable to hypothesize that a stronger equivalence principle is an insufficient incentive for Chinese workers to contribute.

Two caveats should be mentioned when assessing ways to increase compliance rates in China. First, while the value placed on reciprocity is associated with what we call an “ethic of family savings” in China, in Latin American it occurs within an “ethic of ritual spending of wealth” (Cousiño, 1990; Cousiño & Valenzuela, 1994;



Authors' calculations based on AIOS, 2005; International Monetary Fund, 2005; Mesa-Lago, 2005; Rofman, 2005; and Transparency International, 2005.

Fig. 4. Coverage is larger in wealthier countries (International Monetary Fund (IMF), 2005; Transparency International, 2005).

Morandé, 1984). In Latin America, reciprocity is extended beyond the family to God and nature. For example, a profuse harvest is comprehended as a gift of nature or a favor from God. The spontaneous reaction of people is to greet the benefactor with sacrifices or to spend part of the wealth received in a celebration. The popular belief is that human efforts cannot succeed without luck or divine support. This belief is confirmed in Latin American semantics, where the concepts "earning" and "winning" are indistinct: you *win* a wage as you win a lottery. This example illustrates Latin Americans' predisposition to spend and share wealth as if it were a prize. Individual financial planning is not based on this type of reasoning where wealth is often attributed to God or the earth. Such behavior is more typical in cultures that attribute the origin of wealth to human work. In Chinese culture this link seems to be stronger, perhaps because land is more highly regulated and is perceived as a particularly scarce resource. The Chinese more readily save wealth than Latin-Americans, though savings may be for children's prosperity and perpetuating the principle of reciprocity. Even Chinese individuals living in foreign countries, where changes in the family support patterns are more prevalent, tend to sacrifice part of their personal gain for the well-being of their family (Lan, 2002; Wong, Yoo, & Stewart, 2006).

The fact that the equivalence principle could be strengthened a lot more in China constitutes a second caveat when assessing ways to increase compliance rates (Dorn, 2004; Zhao & Xu, 2002). China has formally based its old-age pension system reform, at least in part, on funded IRAs; but in actual practice these IRAs are often closer to the NDC (notional [or unfunded] defined contribution) model than to the funded defined contribution model (Williamson & Deitelbaum, 2005). The NDC model (also referred to as the Non-Financial Defined Contribution model) is explicated in detail elsewhere (Holzmann & Palmer 2006; Williamson, 2004; Williamson & Zheng, 2003). IRAs have been set up and a record is being kept of what has been contributed, but the government routinely diverts money from IRAs to pay pensions to the currently retired. The discrepancy between pension policy as described in government documents and what happens in actual practice, has the unintended effect of contributing to distrust and discouraging both participation and compliance. Fig. 5 suggests that transparency and credibility (high CPI scores) are associated with higher compliance rates. Corruption levels in China are similar to those of Argentina and Peru, and most likely have a negative effect on compliance rates.

Transparency: legality and loyalty

The privatization reforms in Latin America were designed to provide pension systems with a high degree of resistance to political manipulation (World Bank, 1994). However, the economic crisis in Argentina that started in the late 1990s has been attributed in part to the deficit created by the old-age pension reform and poor management of the funds (Bertranou, Rofman, & Grushka, 2003; Matijascic & Kay, 2006; Mesa-Lago, 2004). Argentina deferred its debt by selling bonds to the fund management companies. This risky behavior illustrates that the new funded systems are not immune to political manipulation and that it is important to invest in asset classes other than just government bonds. The

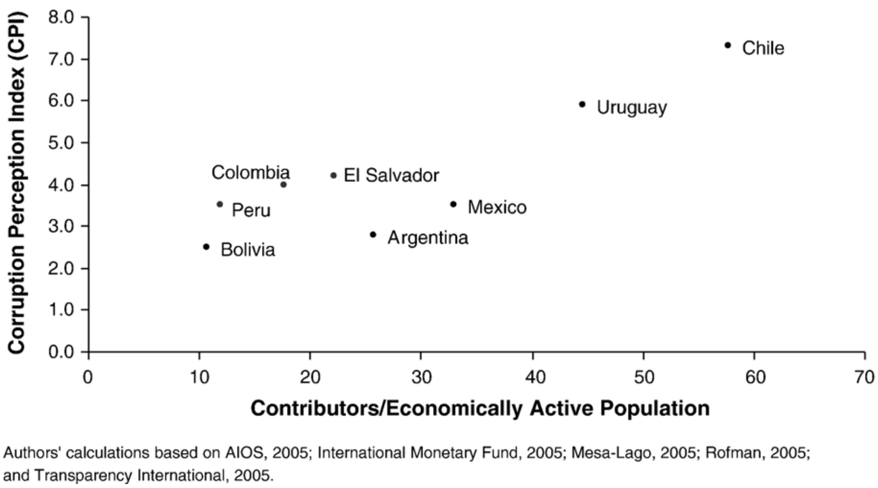


Fig. 5. Coverage is larger in countries with better CPI score (less corrupt) (International Monetary Fund (IMF), 2005; Transparency International, 2005).

case of Bolivia is another good example. Loose regulations led to fraudulent interpretations of the rules for the transition, contributing to higher than expected costs (Dowers, Fassina, & Pettinato, 2001; Escobar & Nina, 2004; Gill et al., 2005). On the other hand, Chile's better coverage can be attributed, at least in part, to its lower level of corruption. Fig. 2 shows the disparity in levels of corruption between Chile and other Latin American countries. Chile has a CPI score closer to Belgium and France, while Argentina and Bolivia have the lowest scores. China also has low CPI scores; this may foreshadow problems with corruption in the funded component of the Chinese pension system.

As discussed earlier, a strong and clean legal system is an indicator of rationalization. A rationalized set of laws is needed when traditional behaviors are unable to provide sufficient social order. In traditional cultures, "loyalty" upholds order to a greater extent than "legality" and leads people to provide favors and preferential treatment to friends or relatives. When a morality based on personal relationships and favors is extended to public institutions, such as the pension system, corruption is a high risk (corruption is a judgment made from the reference point of legality). Accordingly, in a traditional culture, the shift from family support to the support of a formal-institutional pension system – either with or without IRAs – is prone to corruption.

China is particularly vulnerable to corruption for several reasons (Sandholtz Taagepera, 2005). First, loyalty (*zhong*) is a longstanding Confucian virtue that permeates all social relationships (Adler, 2002). Second, mechanisms that facilitate regulation and supervision of the pension system have been slow to emerge (Holzmann & Hinz, 2005). Third, funds are typically invested with low public transparency in a context where there is too much money for too few opportunities (Holzmann & Hinz, 2005; Williamson & Shen, 2004). Fourth, the money is collected, administered, and owned by the government (Dorn, 2004; Jackson & Howe, 2004; Holzmann & Hinz, 2005). Consequently, separating these roles, diversifying the investment opportunities, carefully establishing and legitimating the regulatory system, creating technical organizations of supervision, and enabling greater public access to information about fund management are all much needed steps in Chinese pension reform.

Fiscal stability: economic growth and poverty reduction

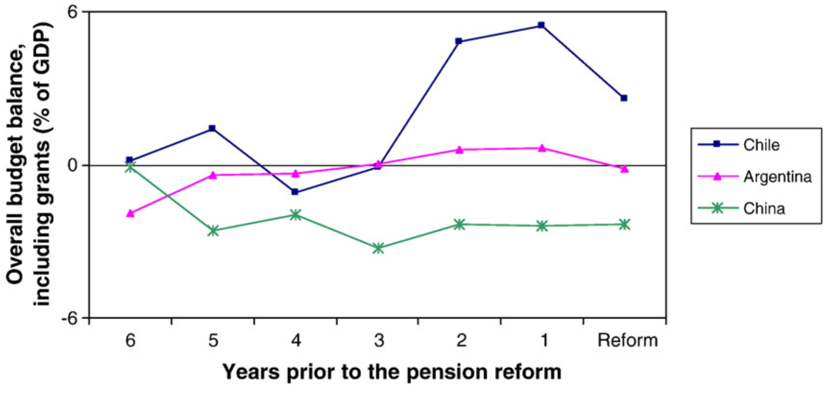
One of the major political selling points for the partial privatization of pension schemes has been governments' difficulty with financing the increasing pension burden associated with prior PAYG defined benefit schemes. Therefore, the fiscal stability of the new systems is fundamental to the credibility of the reforms (Dowers et al., 2001; Gill et al., 2005).

In Latin America the fiscal burden has remained substantial, though it may have been even higher, particularly in future decades, without recent reforms. The shift to partial privatization typically calls for some form of "double payments": payments associated to the new system, but also payments recognizing benefits and contributions for those participating in the old system (Jiménez & Cuadros, 2003; Mesa-Lago, 2000). The transition costs associated with these reforms have typically turned out to be much larger and are currently projected to last much longer than had originally been expected. Permanent costs may also increase: low rates of compliance could force the government to aid more people than initially anticipated through the minimum pension guarantee and social assistance pensions. For the region as a whole the cost of social security and social assistance taken together increased from 5.2% of the GDP in 1990–1991 to 7.1% in 2002–2003 (ECLAC, 2006).

These costs are likely to be high in China as well. Fiscal difficulties have been a problem affecting the Chinese old-age pension system since the 1980s (Jackson & Howe, 2004; Whiteford, 2003; Williamson & Deitelbaum, 2005). Previously, State-Owned-Enterprises (SOEs) were responsible for providing pensions to their retired employees. In the 1980s the finances of the SOEs became deeply strained by the transition to a market economy and the governments' decision to stop subsidizing them. Without government support and with a declining number of workers, SOEs faced serious difficulties in providing pensions for their former workers. In response to this problem, the Chinese government has called for municipal pooling of pension obligations and contributions. This reform largely shifted the financial crisis from SOEs to the municipalities. With the 1997 reforms, the pension burden, previously shifted from the SOEs to the municipalities, was in part returned to the central government.

China's long history of fiscal problems in its pension system and the evidence of pervasive fiscal problems associated with the new privatization related reforms in Latin America suggest that the pension related fiscal burden will continue to be a major challenge for pension reformers in China.

China's weak fiscal situation in the years preceding recent reforms raises concerns about how the nation will deal with the impending cost of the transition. Fig. 6 illustrates the fiscal situation of Chile, Argentina, and



Source: Authors' calculations using World Bank, 2003, based on Gill et al., 2005.

Fig. 6. The fiscal strength prior to the reform is key to overstep its costs.

China in the years preceding the privatization related reforms. Argentina dramatically underestimated the cost of the transition, and during its recent economic crisis paid a heavy price for this mistake. In Chile the transition cost was also very high (about 5.7% of annual GDP during the 1980s and 1990s), but the general fiscal surplus was very helpful in dealing with this burden (Gill et al., 2005; Mesa-Lago, 2000). Fig. 6 shows that China is in a comparatively weak position to handle the fiscal pressures of the reform.

Finding a way to finance the pension system is a problem for most countries around the world, but this problem becomes particularly acute for low-income countries, such as China and those in Latin America. However, there is an important difference between China and Latin America. The Chinese government has called for a new pension system that is based in part on funded IRAs, but due to lack of alternative ways to raise the money needed to pay promised pensions to those who are currently retired, these "funded" accounts are today for the most part unfunded. The money has been used, typically by the local government to pay pensions to those who are already retired, leaving little more than electronic records in the accounts of individual workers specifying that they have made specific "contributions" to their account and the level of the unfunded balances in those accounts. In practice, China is using a variant of "notional accounts" as a financing strategy for the pension system (Williamson, 2004; Williamson & Shen, 2004; Williamson & Zheng, 2003). The discrepancy between the formal structure of the program and what is actually going on must be contributing to mistrust of the government and to a lack of confidence in the pension system. It must also be reducing the incentive to contribute and increasing the incentive to evade paying into the scheme. However, there are advantages to the NDC model when properly designed as the model does help to spread the transition costs over more age cohorts and it does tend to reduce administrative costs.

Low-income countries face difficulties as they try to balance the aims of fostering economic growth and poverty reduction as they reform their pension schemes. It is generally assumed that the main objective for an old-age pension system is to provide at least some financial security for the elderly. In those countries with many elderly in or at risk of poverty, the need for income redistribution becomes particularly salient. Minimum and non-contributive pensions can be used to help with redistribution and poverty reduction, but they do not maximize the equivalence principle and do increase the cost of the system (Gill et al., 2005; Holzmann & Hinz, 2005; Jiménez & Cuadros, 2003; Johnson & Williamson, 2006; Matijascic & Kay, 2006; Mesa-Lago, 2004).

4. Conclusion

While numerous Western countries first experienced cultural rationalization, then economic modernization, and after that faced the challenges of population aging, both Latin America and China are dealing with pension system reforms in the context of much stronger traditional cultures and less developed economies (Fig. 1). The analysis presented in this article suggests that these distinctive characteristics have shaped the consequences of the reforms in Latin America and will likely do so in China.

Specific challenges arise in the context of a traditional culture and a low-income economy where society is organized around the principles of family, reciprocity, loyalty, and poverty (Table 1). One of the most predictable challenges will be the coverage problem. Most Chinese elderly are not covered by formal old-age pension institutions and currently rely only on traditional family support. There is no evidence from the Latin American countries that have introduced pension reforms calling for partial privatization suggesting that coverage for the Chinese system is likely to approach universality in the foreseeable future. Therefore, the family unit, the traditional source of well-being at older ages, seems likely to continue being the major pillar of the old-age security, particularly in rural areas. However, in the decades ahead the Chinese elderly will with increasing frequency find that their families are not in a position to provide the needed support. The need for formal-institutional pension coverage will be increasing rapidly in the years ahead. A key question will be whether the recent reforms calling for partial privatization will in the end undermine or strengthen traditional family networks of support and filial piety.

Low compliance rates are another major challenge for China. Although incentives to contribute have improved, the current low compliance rates point to a preference for old-age security based on reciprocity (e.g. investments on children's education) rather than individual financial planning. Strengthening the equivalence principle that links contributions and benefits could stimulate compliance for some. Nevertheless, those used to living in poverty, particularly in rural areas, may resist efforts to encourage individual financial planning and may prefer to sacrifice part of their modest wealth for the family. It would make sense for policy makers to adjust incentives in such a way as to take into consideration historical, cultural, and contextual factors.

Corruption and lack of transparency aggravate the coverage and compliance problems and constitute yet another challenge for the Chinese reforms. Where loyalty has primacy over legality, corruption and lack of transparency are likely outcomes. Favors are expected in a traditional culture, but such favors are considered corruption in a modern institutional context. Carefully designing, fully legitimating, and cautiously implementing the regulatory system and supervisory institutions are important steps to improve transparency and credibility.

Another foreseeable challenge for the Chinese reform is the fiscal burden. How to finance the reform and to balance the objectives of economic growth and poverty reduction are major questions almost everywhere, but low-income countries such as China face additional difficulties. The empty IRAs, which were supposed to accumulate funds, are likely to increase distrust of government and of government sponsored old-age security schemes. It might make sense for Chinese policy makers to introduce a system based on unfunded defined contribution accounts at least until it is clear that national financial markets and administrative structures are ready for the demands of a partially privatized social security system.

The nations in Latin America under consideration here have not succeeded with respect to coverage and compliance. In addition, transparency and fiscal stability are far from certain. This evidence suggests that without some major changes in the current policy direction, China may be headed for potentially serious pension policy problems in these four areas. The modernization pathway preceding old-age pension reform in China will likely shape the process and outcomes in these four areas. Chinese policymakers might well benefit from a close analysis of the flaws that are starting to become clear in connection with the new partially funded pension schemes that have been introduced in Latin America in recent years.

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