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Administrative fees and costs of mandatory private pensions in transition economies

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Abstract

This paper discusses fees and costs of pension companies in transition economies drawing on examples from four countries – Croatia, Hungary, Kazakhstan and Poland – where second pillar pensions have the longest history of implementation. It finds that at current levels, charges are likely to reduce returns on individual account balances by around 1% per annum *on average*. Exact rates vary by country and company. Fee structures are complex and, generally speaking, poorly understood by consumers. The limited information on costs that is available suggests that, by and large, companies are able to meet their operating costs within a few years after starting operations. There are large sunk costs in setting up business. As a result the industry displays strong economies of scale. Based on the available evidence, the paper estimates fixed costs to be of the order of \$35 per account per year (the 95% confidence interval is \$21–\$49 per account per year). Given costs of this order of magnitude, individual accounts need to be of the order of 4–6% of average wages for the second pillar to be viable i.e. to deliver a return greater than what can be expected from an unchanged first pillar.

1 Introduction

It is well-known that since 1998 a number of ex-socialist countries have introduced a ‘second pillar’ (i.e. a mandatory, private funded component of the pension system). The basic assumption for such a reform was that it would prove more attractive to the contributors, who would be more willing to contribute to their own funds than to the public system. Yet there has been very little study of charges and costs in these second-pillars. The costs of administering individual pension accounts may be high, especially in systems which are fairly decentralized and operate on the lines of the retail financial services industry (see, e.g., James, Smallhout, and Vittas, 2001; Murthi,

Orszag, and Orszag, 2001). When passed on as fees, high costs may substantially lower the return on pension saving, thus reducing the attractiveness of the second pillar and, in the extreme, exposing individuals to poverty in old age. In addition, most second-pillars provide some form of public guarantee (e.g. through a minimum pension or a minimum rate of return provision), so costs and fees affect the size of governments' contingent liabilities.

One reason why charges and costs in transition economies have been relatively understudied is that second pillar accounts are still relatively new. Of the ten or so countries that have operated second pillars, the majority introduced the second pillar after 2001. In addition, returns on individual accounts in the initial years were relatively high (albeit in nominal terms). For example, the average nominal return to pension funds in Poland were 15.9% in 1999, 14.2% in 2000, and 4.8% in 2001. In part, high returns masked the impact of fees. When financial markets turned down in 2000, fees and costs came into greater prominence.

This paper attempts to fill this gap in our knowledge and summarizes what is known on charges and costs in transition economies.¹ Much of the literature on the subject originates from Latin America, where it is known – especially from Chile – that operating costs can be high, effectively excluding low-paid workers from the system. This paper focuses largely on transition countries that introduced multi-pillar systems early on and thus have relatively long time series of information. Four countries are considered – Hungary, Poland, Kazakhstan, and Croatia. The first three introduced multi-pillar systems in the late 1990s. Croatia's multi-pillar system became operational in 2002 and – although not an early reformer – is interesting owing to its specific institutional arrangements for contribution collection and record-keeping.² The paper does not present details of the reforms or the functioning of the new systems but focuses on drawing conclusions regarding charges and costs from cross-country experience.³ Some limited comparisons with Latin America are attempted. We follow the literature and use the term 'charges' or 'fees' to refer to costs paid by workers for the administration and management of their second-pillar accounts. We use the term 'costs' to refer to the costs incurred by pension companies. Charges and costs relate only to the accumulation phase of the pension, not the payout phase when the accumulated balance may be used to purchase an annuity or be drawn down.

The rest of the paper is organized as follows. The next Section 2 discusses the main findings with respect to charges while the following Section 3 discusses the emerging understanding regarding industry costs. Finally, Section 4 presents some conclusions and emerging lessons.

¹ The paper draws on the World Bank study entitled 'Administrative Charges in Second Pillar Pensions in ECA: A Case Study Approach' funded by the Chief Economist's Office of the ECA Region.

² See Sections 3.1 and 3.3 below.

³ On the individual country experiences with pension reform see, Rocha and Vittas, 2001 (Hungary); Andrews, 2000 (Kazakhstan); Hausner, 1998; Gora and Rutkowski, 1999, and Chlon, Gora, and Rutkowski, 1999 (Poland); and Anusic, O'Keefe, and Madzarevic-Sjuster, 2003 (Croatia) as well as the individual case studies in World Bank, 2003. For an overview of pension reforms amongst transition economies see Lindeman, Rutkowski, and Sluchynsky, 2000, and for pension reform in an international perspective, see Fox and Palmer, 2001.

Table 1. Charge structure in ECA second-pillar accounts

Charges in effect from:	Up-front fee (% contributions)	Management fee (% assets)	Returns fee (% returns)	Exit fee (% assets)	Brokerage fee	Custodian fee
Hungary (second pillar since January 1998)						
Jan 1998	5–6	×	×	0.1	✓	✓
Kazakhstan (second pillar since January 1998)						
Jan 1998	1	×	10	×	×	×
Jan 2003	×	0.6	15	×	×	×
Poland (second pillar since January 1999)						
Jan 1999	8.5	0.6	×	✓	✓	✓
Jan 2004	7.0*	0.54	✓**	✓	✓	✓
(capped)						
Croatia (second pillar since January 2002)						
Jan 2002	0.8	0.8	25	✓	×	✓
July 2003	0.8	1.2	×	✓	×	✓

Notes: The table denotes maximum fees permissible under the law. Actual fee levels may vary depending on annual ceilings set by regulators and business decisions of pension companies.

* The up-front fee in Poland is scheduled to fall to a maximum of 3.5% by 2014.

** The rate of return fee in Poland (called premium account fee) depends on relative fund performance and is subject to a maximum of 0.06% of assets per annum.

Source: World Bank, 2003.

2 Administrative charges

2.1 Charge structures

The structure of charges adopted in the countries under study are fairly complex – see Table 1. Countries typically permit a range of fees and charges, including:

- (i) up-front fee;
- (ii) a management fee;
- (iii) fee on investment returns;
- (iv) exit fees;
- (v) brokerage fees; and
- (vi) custodian fees.

The up-front fee (a percentage of contributions) is the most common and is found in all the countries under consideration in this paper with the exception of Kazakhstan. Up-front fees were collected in Kazakhstan till 2003 but were then disallowed.⁴

The asset management fees (a percentage of individual account balances) is a second common fee, typically collected on a monthly basis. The exception is Hungary where there is no explicit asset management fee charged directly against individual account

⁴ Kazakhstan had up-front fees and rate-of-return fees prior to new legislation enacted in 2002. The new law introduced management fees and raised the cap on rate-of-return fees, while disallowing up-front fees.

balances. However, returns to individual accounts are credited on a net-of-costs basis. This reduction in account earnings is akin to a management fee, although it is not recognized as such.

A third fee is a fee on performance or returns.⁵ Examples of this type of fee are found in Kazakhstan, Croatia (till 2003), and Poland. In Poland, the fee depends on fund performance relative to the market average. Performance fees may be charged as a share of returns (e.g. Kazakhstan) or as a percentage of individual account balances (e.g. Poland).

In addition to up-front fees, management fees, and performance fees, companies may charge exit fees when workers transfer their individual accounts to another company. Exit fees may be fixed (e.g. Hungary, where exit fees can be no more than 0.1% of individual account balances per switch), or operate on a sliding scale with loyalty being rewarded with lower fees on exit. For example, in Croatia the maximum exit fee falls from 2.4% of individual account balances in the first year of membership, to 1.2% in year 2, to 0.6% in year 3, and zero thereafter. In Poland the exit fee has two components, one fixed and the other which declines with length of membership in a fund (it falls to zero after two years with a provider.) Kazakhstan does not allow exit fees.

In addition, in all the countries studied excepting Kazakhstan, workers pay brokerage fees (or portfolio trading costs), or custodian fees (the cost of custody of the fund assets), or both.

Although the structure of charges is complex, in practice, pension companies collect the bulk of their revenues from the up-front fee, the management fee, and the fee on returns. While there have been changes in the level of individual fees (see Section 2.5), there have been limited attempts at simplification of fee structure. This is related, in part, to the different purposes served by different fees. Up-front fees are front loaded (i.e. they provide company revenues early on) and thus allow for early recovery of start-up costs. They also provide incentives for contribution collection. However (by emphasizing collection) they provide limited incentives for maximizing returns from investment. The latter purpose is better served by fees that are linked to assets under management or investment returns.

The structure of charges, and, in particular, the balance between up-front fees and management charges, reflects the relative emphasis placed by policy makers on the differing objectives. In Latin America, second pillars were introduced when the financial sector was still relatively underdeveloped and there was concern about limited entry and insufficient competition in the market for pensions. This led to a greater emphasis on up-front fees. In the transition economies, concern for entry has been lower, perhaps owing to the presence of established financial services companies in Western Europe with an interest in expanding operations. As a result, there has been a greater reliance on management fees and fees on returns.

Of the two, fees on returns can be fairly volatile, especially when measured as a share of returns. Countries which adopted this form of fee have felt the greatest

⁵ The exact name varies by country, e.g., success fee (Croatia), performance premium (Poland), and investment income fees (Kazakhstan).

need to make changes. In Kazakhstan where there was a low up-front fee on returns but no management fee till 2003, the pension industry lobbied for the introduction of management fees to assure both higher and more stable returns. In Croatia on the other hand, the fee on returns lost the support of the pension industry when returns did not lived up to expectations, and were replaced with a fee on assets in July 2003.

The complexity of the charge structure means that, in general, charges are poorly understood by the average pension fund member. For example, survey evidence from Poland suggests that the majority of the population does not know what fees are paid to pension companies (Chlon, 2000; UNFE, 2000). Even among those who subscribe to pension funds, knowledge would appear to be limited. In another survey in Poland, this time of subscribers, 63% declared very limited understanding ('know nothing') about up-front fees, and 71% declared limited understanding about management fees. More than 40 per cent of those surveyed did not know that there was a transfer fee for moving one's account to another provider. At the same time, the majority of the respondents – 60% – felt the fee structure was clear (UNFE, 2001). As might be expected the comprehension of fees was higher among the better-educated and younger respondents.

Available evidence also suggests that the most widely understood charge is the up-front fee. The greater awareness of up-front fees may be because they come directly out of contributions, i.e. they are the part of contributions that are not credited to the individual account. The greater awareness of up-front fees may explain why, amongst our studied countries, charges are more of an issue of public concern in Poland. In 2001, over 88% of all charge revenue collected by pension funds in Poland was from up-front fees. The equivalent figure in Kazakhstan was 19%.

2.2 Charges and account transfer

Before discussing the potential impact of charges on pension capital, it is worth saying a few words on account transfer. In all countries there are significant disincentives to account transfers Table 2. We have already mentioned exit fees and will not dwell on them here. In addition to exit fees there may be other price and non-price disincentives to transfer of accounts. In Poland, for example, many companies diversify up-front fees based on years of membership, charging lower fees for longer-standing members. This would discourage switching unless expected differences in rates of return are sufficient to justify the higher up-front fee that would be charged by the new provider. In addition, there is legislation that prohibits the offering of explicit financial incentives for changing providers. In Hungary there are limits to the number of times an individual can change providers (no more than twice a year). In addition, the administrative complexity around changing providers essentially discourages account transfers. Kazakhstan also limits the number of times an individual can change providers per year (no more than twice).

As a result of these price and non-price disincentives, transfer activity is understood to be fairly limited. Although we were not able to obtain figures for every

Table 2. *Disincentives to account transfer*

Country	Exit fee/size	Other price disincentives	Quantitative restrictions	Other restrictions
Hungary	✓ – small (no more than 0.1 % of account balance)		✓ – no more than 2 times a year	✓ – administrative barriers to switching
Kazakhstan			✓ – no more than 2 times a year	
Poland	✓ – small	✓ – upfront fees fall with years of membership		✓ – explicit financial rewards for switching disallowed
Croatia	✓ – large (2.4 % of account balance in year 1)			

Source: World Bank, 2003.

country, in Poland in 2001 a little over 1.5% of accounts changed hands compared to, for example, Chile, where as many as one third of accounts were changing hands in the mid-1990s.⁶

2.3 The impact of charges

We now turn to the potential impact of fees on pension savings. We adopt standard methodology for calculating two measures that are used in the literature to measure the cost to the consumer of fees. Both measures (reduction in yield and reduction in premium) rely on the notion of foregone saving implied by fees. In the case of reduction in yield, the impact of charges is measured in terms of notional loss of returns *vis-à-vis* a no-fee scenario. In the case of reduction in premium the impact is measured in terms of notional loss of pension capital *vis-à-vis* a no-fee scenario. The estimates presented in Table 3 assume real wage growth of 2% per annum, real investment returns of 4%, and an uninterrupted contribution history of 40 years. Impact measures are presented for three countries only – Hungary is excluded from these calculations, as charges against individual account balances are not fully explicit.

As can be seen from Table 3 (lines 5 and 6) charges vary considerably from country to country, with the lowest charges observed in Poland and the highest in Croatia. In Poland, under current legislation, charges are likely to lower assets by over 14% and lower yield by a little over three-quarters of a percent over the lifetime of the average individual. In Croatia, charges may be expected to lower pension capital by over 22% and reduce returns by over 1.25% for the average individual.

⁶ We are grateful to one of the referees for bringing this to our attention. The rate at which accounts were changing hands declined starting October 1997 following a modest change of regulation in Chile.

Table 3. *Charges and their impact*

	Poland		Kazakhstan		Croatia	
	2001	2004	2001	2003	2002	2003
1 Size of second pillar (share of gross wages)	7.3	7.3	10.0	10.0	5.0	5.0
2 Up-front fee (% contribution)	8.5	7.0*	1	0	0.8	0.8
3 Management fee (% assets)	0.6	0.54	None	0.6	None	1.2
4 Rate of return fee/ (% return)	None	**	10	15	25	None
5 Average account size (in US\$)	456		236		291	
6 Charge per account (in US\$)	19.3		8.8		9.2	
7 Charge/unit of assets (%)	4.3		3.7		3.1	
8 Reduction in assets	17.1	14.2	8.7	21.4	27.8	22.2
9 Reduction in yield	0.94	0.76	0.45	1.21	1.66	1.26

Notes:

* The cap on up-front fee is set to fall from 7% to 3.5% over a ten-year period.

** Starting 2004, law introduces a performance premium fee, capped at 0.06% of assets, related to fund performance.

Reduction in assets and reduction in yield assume real wage growth of 2% per annum, real investment returns of 4%, and an uninterrupted contribution history of 40 years.

Source: Authors' calculations.

In terms of a simple average for this group of countries, charges would appear to be at levels that in terms of impact are likely to reduce yields on individual account balances by around 1% per annum.⁷ As with any average, 1% per annum is something of a fiction with considerable variation in terms of fee levels in individual countries. However, it may have some value as a focal point. For example, in Kazakhstan, which started its second pillar in 1998 with charges considerably lower than the 1% average, the upper limit on charges has been raised and now stands above this level. On the other hand in Croatia, where the second pillar was introduced in 2002 with considerably higher fees, charges were lowered towards this level within a year of operation. If current levels were to be maintained, charges in the countries under study would reduce accumulated pension capital over the working life of the average individual by around 19%.⁸

⁷ This figure is obtained as a simple average of reduction in yield in using 3 different rates of wage growth (2, 3, 4%) and 3 different rates of return (2, 4, 6%) for past and current fee scenarios in three countries Poland, Kazakhstan, and Croatia. The simple average is 1.049, which we round down to 1%. See Appendix for the figures for each wage-return scenario.

⁸ The assumptions behind this figure are identical to those in the reduction in yield case described in the previous footnote. The simple average obtained is 18.6%, which we round up to 19%.

Table 4. *Charges and their impact in international perspective*

	Reform year	Reform 'age'	Size of second pillar	Reduction in yield	Reduction in assets
Argentina, 1999	1994	5	10.0	1.13	23.0
Bolivia, 1999	1997	2	10.6	0.54	11.1
Colombia, 1999	1994	5	11.6	0.69	14.1
Chile, 1999	1981	18	11.8	0.76	15.6
El Salvador, 1999	1998	1	12.1	0.86	17.6
Peru, 1999	1992/3	6	12.4	0.93	19.0
México, 1999	1997	2	8.7	1.08	22.1
Uruguay, 1999	1996	3	14.4	0.70	14.3
Croatia, 2003	2002	1	5.0	1.27	24.4
Kazakhstan, 2003	1998	5	10.0	1.36	25.9
Poland, 2004	1999	4	7.3	0.74	15.2

Notes:

¹ Simulations for Latin America are for full career workers (40 years), annual wage growth of 2% and rate of return on pillar 2 investments of 5%.

² Size of second pillar in Latin America = contribution rate to pillar 2 plus net fee as a share of wages.

³ Assumptions for transition economy simulations are the same as for Latin America. They differ from those in Table 3 only in that the return on second pillar investments is assumed to be higher (5% as opposed to 4% in Table 3).

Source: Latin America: James, Smalhout, and Vittas in Holzmann and Stiglitz (eds), 2001, Transition economies: authors' simulations.

2.4 *Charges in an international perspective*

Table 4 makes an attempt to put fees in transition economies countries in international perspective by comparing reduction in yield and reduction in assets with Latin America. Comparator data from Latin America are from 1999. The experience from Latin America is that competition has driven down charges over time. Therefore in making comparisons it is important to compare across second pillars that are of equivalent 'reform vintage'. In 1999, the second pillars in El Salvador, Mexico, and Bolivia were one to two years old, which would make them roughly as 'old' as the Croatian second pillar, while the second pillars in Argentina and Colombia were five years old, making them roughly comparable in age to the second pillars in Kazakhstan and Poland. Since the reduction in yield/asset measures from Latin America are available under different assumptions regarding investment returns (in particular the source assumes real returns to be 5% per annum as opposed to the 4% we have assumed for the purposes of this paper), we recomputed our impact measures using the higher rate of return. This accounts for the difference in estimates from Table 3.

Table 4 suggests that, with the exception of Poland, fees in transition economies can potentially have a greater impact on pension saving than charges in the second pillar in Latin America. Poland is close to the lower end of the fee scale relative to its 'comparators'. On the other hand, fees in Croatia and Kazakhstan are greater than

their 'comparators'. In part, the difference between Poland and other transition economies is probably due to the difference in market size: being one of the largest countries of the region, Poland is in a better position to benefit from economies of scale (this issue is discussed further in Section 3.4 below).

While fees may be higher in transition economies than in Latin America (with the exception of Poland) this is of course not to suggest that in the long run charges will amount to a larger share of pension savings in the countries under study than their Latin American comparators, as charge levels in transition economies are still evolving. Indeed, in both Kazakhstan and Croatia regulators have the option of tightening the limits on fee levels, thus reducing impact of the charges on pension capital if they should so choose. Charges are also evolving in the Latin American comparators, making forecasting an exercise fraught with many difficulties.⁹

A further factor that qualifies comparisons across countries is the size of second pillar accounts. There are considerable fixed costs associated with setting up second pillar accounts, including the setting up of offices by pension companies, hiring of staff, setting up of collecting and recording systems, etc. (see next section). These fixed costs result in higher costs as a share of pension savings where accounts are small. Charges, to the extent that they reflect underlying costs, can be expected to take a higher share where accounts are small, as for example in countries where (covered) wages are low, or the share of wages going into the second pillar is small. In transition economies the share of wages devoted to the second pillar has been lower on average than in Latin America. For countries with equivalent wage levels, we would expect charges to represent a proportionately higher share of pillar 2 savings in transition economies than in Latin America. So, for example, some of the difference in fee impact between, for example, Croatia and Mexico (whose average wages are approximately the same) may be explained by the fact that a smaller share of wages is devoted to second pillar savings in Croatia. The difference in charges cannot be attributed to account size alone and, as will be discussed below, there are other reasons why charges in Croatia may be higher than warranted.

2.5 Charges and policy

Unlike Latin America, transition economies have typically relied on price controls to keep charges in check. With the exception of Hungary all the countries in this study rely on price caps in some form or the other.

Poland has successfully used price caps to lower fees. Prior to 2004, the management fee was subject to an upper limit (0.6%). The up-front fee, however, was not capped. The changes that came into effect in 2004 capped both the management fee

⁹ The assumptions on rate of return and wage growth also bear on the comparison. Since the fee on investment returns constitutes a large share of charges in Kazakhstan, the impact of charges is smaller under assumptions of lower rates of return and higher wage growth. Low returns and high wages are not implausible in a country experiencing an oil boom which is driving up wages, causing reductions public debt in which a large portion of pension assets are invested, and causing a real appreciation (which drives down returns from international investment in local currency units).

(at 0.54%) and the up-front fee (at 7%). Moreover, a series of reductions were legislated to halve the maximum up-front fee from 7% to 3.5% over a period of ten years. Further limits were placed on the management fee related to the overall size of assets under management. In addition, the new law allowed providers to charge a premium for good performance, which was to be no greater 0.06% of assets annually, and related to the relative (not absolute) performance of the provider. The new law lowered overall fee levels (as seen in Table 3) and is expected to further reduce fees over the medium to long run.

In Croatia, experience with price caps is relatively short and ambiguous. The three main fees – up-front, management, and investment returns – are all subject to ceilings. Following the first year of operation, the price caps were modified. In particular, the fee on returns was abolished (i.e. the ‘performance fee’ was capped at zero), while the cap on management fees was raised. However, the potential impact of this change depends critically on rate of return assumptions. At low rates of return, the changes may well increase the reduction in yield (premium) i.e. raise overall fee levels faced by workers. At higher rates of return potential losses due to charges would be lowered (as reflected in Table 3). The impact of the change in ceilings is therefore ambivalent ex-ante.

In Kazakhstan, price caps have been raised to allow for higher charge levels. This was the consequence of price caps that were in all likelihood set too low at the inception of the reform. Up until 2003 both up-front fees and fees on investment returns were subject to a maximum, and there were no management fees. However, managers of pension funds argued that the caps were too low and, with the heavy reliance on rate of return fees, revenues were not stable. In response, a management fee was introduced but was capped at 0.6%. The maximum limit on rate of return fees was raised and the up-front fee eliminated. The net impact was to raise overall fee levels (see Table 3).

In general, there is very little variation across companies in terms of fees in all countries studied. This may be owing to the use of price caps and the tendency for companies to charge fees that are at (or close to) the ceilings specified in the law. Even where charges may be unrestricted, there has tended to be little evolution in charges over time. The experience from Poland is illustrative here. Up-front fees were initially unrestricted and some funds charged higher fees. However, competition in the market led to their lowering their fees within the first year of operation. After this initial decline, however, there was little movement. It is believed that this is due to the need to have fee changes approved by the Superintendency of Pension Funds (UNFE). Pension funds felt that UNFE was unlikely to approve of an increase in fees, and this made them averse to lowering fees in case they were unable to get regulatory approval for an increase should that prove necessary subsequently.

The same explanation (companies herding around the price cap) cannot be applied to Hungary as it does not have price caps. Nonetheless, the bulk of private pension societies end up charging similar up-front fees.¹⁰ Some private pension societies do

¹⁰ In 2001, approximately 75% of fund members paid approximately the same charge on contributions of around 5–6%.

Table 5. *The flow of money and information in the second pillar*

	Poland	Hungary	Kazakhstan	Croatia
Name of social security agency?	ZUS	x	SPPC	REGOS
Who collects pillar 1 contributions?	ZUS	Tax Admin	Tax Admin (with SPPC pass-through)	Treasury
Who collects pillar 2 contributions?	ZUS	Pension societies	SPPC	REGOS
Are pillar 2 collections centralized or decentralized?	Centralized	Decentralized	Centralized	Centralized
Who keeps pillar 2 records?	Pension companies	Pension societies	Pension companies and SPPC	REGOS and pension companies
Who communicates with members/affiliates?	Pension companies	Pension societies	Pension companies	REGOS
How is the social security agency or clearing house financed?	Budget + fees paid by pension companies	x	Budget	Budget

Notes: ZUS: Social Security Institute, Poland. REGOS: Central Registry of Affiliates, Croatia. SPPC: State Pension Payment Center. Tax Admin: Tax Administration.

have higher charges. Contribution charges tend to the highest among: (a) so-called 'independent' pension funds which are not connected to large financial groups and may not benefit from some cost-sharing with the parent company, (b) occupational pension funds where, again, the employer or sponsoring agency may not be sharing some of the costs of running the pension society (see further discussion in Section 3.2 below).

3 Costs in the pensions industry

We now turn to the costs of pension companies.

3.1 Key institutional features

We begin with a brief discussion of the key some institutional features of the different systems (summarized in Table 5) which have a bearing on costs.

A variety of systems for collecting contributions and maintaining records have been adopted in the region with varying degrees of centralization and, in some instances, duplication. At one end of the spectrum we have the Hungarian system which is largely decentralized. Employers pass second pillar contributions directly to pension societies who maintain records and communicate with members. First pillar contributions are handled by the tax authorities along with other taxes. In the middle we have Poland where contribution collection is centralized within ZUS (the Social

Security Institution) which collects both first and second pillar contributions. ZUS, however, does not maintain records for the second pillar which are maintained by the pension companies. The examples of the greatest centralization are found in Kazakhstan and Croatia where the central agencies collect contributions (pillar 2) and maintain records.

Although similar in many respects there are significant differences in which the central agencies operate in Kazakhstan and in Croatia. In Kazakhstan, although the central agency (called State Pension Payment Center or SPPC) keeps individual records, maintaining individual records is primarily the responsibility of the pension companies. Thus there is a duplication of responsibilities although, given the relatively weak institutional context, this duplication of effort may be well justified. Communication with members is also primarily the responsibility of pension companies and is a significant share of pension company costs. In contrast, in Croatia, pension companies do not need to keep individual records as this is the responsibility of the central agency (called Central Registry of Affiliates, or REGOS). Communication with system members is also the responsibility of REGOS. In both countries the central agencies are budgetary entities and are financed entirely out of the budget. In contrast, in Poland, ZUS charges pension companies for collection services.

Based on the services provided, the existence of a central agency for collection and record-keeping creates very different cost environments for pension companies. Among the countries studied in this paper there is range extending from Poland where the central agency provides the fewest services and costs 'the most', to Croatia where it does 'the most' and costs the least (in fact explicit cost to the pension companies is zero).

3.2 *Evidence on costs from company balance sheets*

We now turn to information on costs (expenditures) of pension companies. The main source of information on costs is profit and loss statements of pension companies. However, while these data can provide some guidance on the overall level and sources of costs in the industry, they are less than ideal in several respects.

First, profit and loss statements are not fully transparent in some cases. We had discussed the lack of transparency in charges in Hungary previously. This lack of transparency carries over to costs. Many pension societies are sponsored by financial groups or employers and incur costs on account of the pension societies. However, these costs are not reflected in pension society accounts.¹¹ At the same time, the creation of pension societies as not-for-profit agencies fully owned by their members means that the sponsoring agencies cannot claim title or equity or future income flows in return for their expenses. It is expected that they obtain a return on their

¹¹ For example, few agents (if any) are employed by pension societies in Hungary. Office space is usually rented from the sponsoring financial company, equipment may not be the property of the society, and management often collects a substantial portion of their remuneration package from the mother company by virtue of some titular position.

investments in non-transparent ways, such as directed contracts or other arrangements that benefit sponsoring companies. These arrangements enable pension societies and their sponsors to shift cost elements among members of the same financial conglomerate and make the interpretation of cost data as reported by the pension societies a hazardous affair.¹²

Second, in some countries, such as Kazakhstan, profit and loss statements of pension companies are not fully comparable either across companies or over time, owing to inconsistencies in the reporting of data.¹³ In addition, the breakdown of costs is presented on a highly aggregated basis, precluding anything other than the simplest analysis.

In general, we are most confident of overall costs and their breakdown by source in Poland and Croatia. For the other two countries where profit and loss statements are either relatively non-transparent (Hungary) or not fully comparable (Kazakhstan), we have had to rely on discussions with key informants to understand overall trends and sources of costs.

Third, *all* data (whether from profit and loss statements or discussion with informants) share the problem that costs are broken down by accounting source rather than categories that are useful from an analytical point of view. As a result, it is difficult to reach an assessment of costs in *functional* terms. Pension companies perform a number of key functions including contribution collection, data entry and processing, record-keeping, client services, investment management etc. However, as accounting and functional classifications do not coincide there is no obvious way to attribute these expenditures across functions and thereby determine how much is spent on each.

With these caveats in mind, we draw a few conclusions on costs of pension companies. As far as aggregate or total costs go, pension companies do not appear to break even in the first few years of operations. However, losses appear to decline over time and profitability emerges. This is best illustrated by the example of Poland: in 1999 all pension companies had losses, in 2000, one in 20 made a profit, while in 2001 five out of 18 pension companies were profitable. The early loss making is due to the fact that companies incur large expenditures to 'set-up' their businesses, including renting offices, hiring staff and engaging in business development (marketing and advertising). Revenues are slow to come in, especially where there is an emphasis on management fees as opposed to up-front fees, which is the case in most of the countries studied.

In terms of sources of costs the two most important items would appear to be the costs of staff, and the cost of marketing.¹⁴ Within marketing costs, commissions on

¹² This is not to suggest that profit and loss statements are not comprehensive or transparent. The problem rather is one of interpretation given cost shifting that is known to occur, and the lack of a clear link between the data in the financial statements (including returns) and individual account balances and their net growth.

¹³ In Kazakhstan as pension companies and asset managers often belong to the same financial group the formally reported split of operational costs between them should be considered with caution as it could reflect the need to minimize taxes or other factors.

¹⁴ In Poland, staff (including overheads) and marketing amounted to 86% of operating costs of pension companies in 2000, falling to 72% in 2001. In Croatia, the share of staff costs and sales and advertising was 70% in 2002.

sales generally far outweigh spending on advertising. A third important item is overheads, including office space, materials, telephone services, banking services, and communications (including periodic communication on account balances).¹⁵ Where asset management is outsourced (as in Kazakhstan or Hungary) this, too, can be a significant source of costs although, owing to data limitations in the countries concerned, we cannot be fully confident of these findings.¹⁶ For example, in Kazakhstan, where asset management is performed by separate asset management companies, investment management is of the order of 30% of total costs. In countries which operate guarantees (e.g. Poland, Croatia), contributions to the guarantee fund is a small but significant source of costs.¹⁷ Pension companies also pay for custody and brokerage, and for supervision, although these tend to be a relatively small share of costs.

For the purposes of illustration, the following were the shares of different costs in Poland in 2001: staff and overheads 40%, sales and advertising 32%, collection fee (to ZUS) 6%, supervision fee <1%, guarantees 13%, custody <1%, taxes 2%, depreciation 3%, others 3% (total = 100%).

3.3 *Has centralization lowered costs?*

As discussed previously, the countries in this study have adopted varying degrees of centralization with respect to contribution collection and record-keeping, with Hungary taking a completely decentralized approach, Poland taking an intermediate approach, and Kazakhstan and Croatia adopting a high degree of centralization in collection and record-keeping.

Has centralization of collection and/or record-keeping influenced costs? It is widely surmised that central agencies (referred to as ‘clearing houses’ in the literature) contribute to cost reduction in the second pillar in a number of ways.¹⁸ Centralization of collections is believed to lower the costs on both pension funds and employers who have to deal with only one agency for making or receiving payments. More indirectly, the existence of a central agency takes away the need for employers to know which funds their workers subscribe too. This ‘information barrier’ is believed to reduce the chances that funds may try to market themselves via employers. Centralization of records allows easy access to records, reduces the need for moving records when contributors change providers, and simplifies the calculation of the total pension (from the two pillars). The existence of a central

¹⁵ Legislation in most of the case countries requires communicating with account holders at least once a year in a secure form. This necessitates the use of agents’ services, where the postal service may not be reliable (e.g. Kazakhstan) or registered post (e.g. Poland). Both can be expensive.

¹⁶ Where investment management is performed in-house (e.g. Poland and Croatia), company accounts do not list investment management costs separately.

¹⁷ In Poland, the cost of guarantees amounted to 7% of operating costs of pension companies in 2000, rising to 13% in 2001.

¹⁸ See, e.g., Lindeman, Rutkowski, and Sluchynskyy, 2000; and Thompson, 2002. The literature defines a ‘clearing house’ as an institution, publicly or privately owned, which centralizes collections and record-keeping for the second pillar. Owing to confusion with the idea of market ‘clearing’ in the Walrasian sense we have adopted the term ‘central agency’ in place of the more standard ‘clearing house’.

record-keeping agency also removes the need for pension fundholders to know the individual details of their client base. This second ‘information barrier’ is surmised to play an important role in lowering second-pillar costs by reducing the incentives for marketing and advertising.

Unfortunately, available cost data do not allow us to examine whether collection or record-keeping costs are indeed lower in cases where central agencies are in operation.¹⁹ Nor is a simple comparison of costs (in dollars per capita) appropriate, given the importance of staff costs in total costs and the differentials in wage levels across countries.

One respect in which the systems can be compared however is in charges. Given competition in the market we would expect any supernormal or monopoly profits to be competed away and charges to reflect underlying costs. In this context it is interesting to note that in Croatia, where the bulk of collection and record-keeping costs are borne by the central agency, fees are substantially higher than in Poland, where the central agency performs more limited functions (see Table 5). This suggests that pension companies in Croatia may well be over charging for the services they provide. Moreover, the changes to the fee structure since the inception of the second pillar do not seem to have addressed this problem.

While it is too early to conjecture what the Croatian ‘clearing house’ may deliver in the long term, it is clear that in the early stages of implementation it has yet to exert significant downward pressure on charges in Croatia. One of the problems would appear to be the limited capacity of the Croatian regulator for analysis and policy formulation. A further issue is the excessive reliance on back-loaded management fees, which, for cost-recovery reasons, have to be raised in the short run to levels that would be harder to justify in the longer term. It also appears that the second ‘information barrier’ between pension companies and their members is not maintained. Indeed, information on members is passed on a regular basis from the central registry REGOS to the pension companies. It is felt that, if this information is provided as a matter of routine, it removes the opportunity for pension companies to acquire this information from REGOS through questionable means.

3.4 Some estimates of fixed and variable costs

The previous section suggests that a large share of company costs is ‘fixed’ in the sense that companies need to incur them irrespective of the size of their business. Cost per account is therefore expected to be lower for companies that are able to attract a large number of accounts. This is borne out in Figure 1, which graphs costs per account and cost per unit of assets from two countries, Poland and Kazakhstan. As expected, both costs per account and costs per unit of assets are lower in the larger funds.

Table 6 makes a preliminary attempt to estimate the size of these ‘fixed’ costs by pooling available fund-level data from three countries, Kazakhstan, Poland, and

¹⁹ In addition to costs in the private sector, any comparison of costs across countries would need to take account of costs of the system borne by the public sector, an exercise which presents analytical hurdles in its own right.

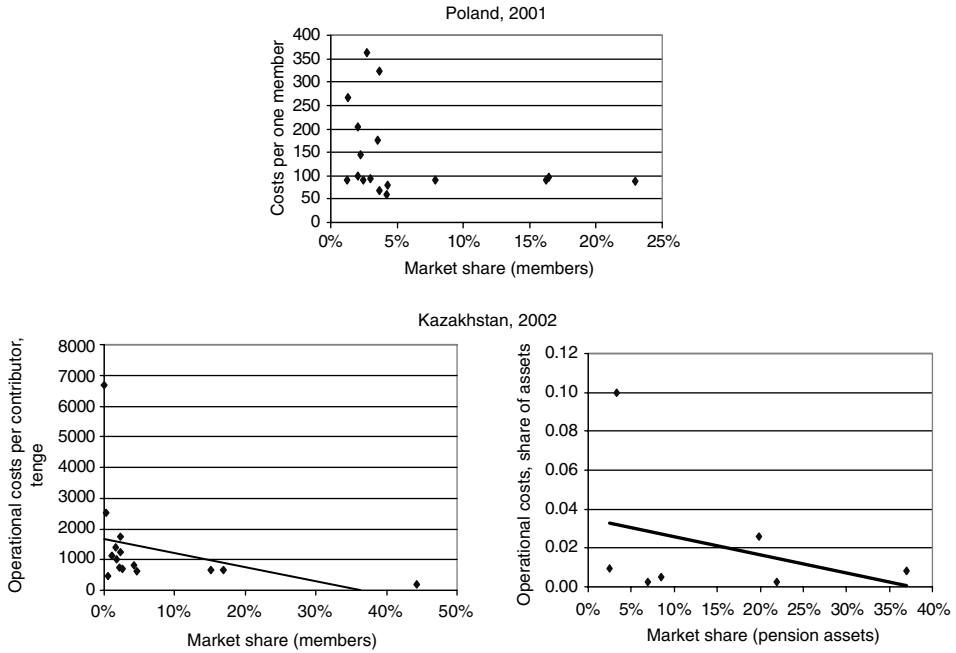


Figure 1. Evidence on economies of scale

Note: For Kazakhstan, operational costs per contributor are as reported by pension companies, and operational costs per unit of assets are as report by asset managers.

Source: UNFE (Poland), National Bank of Kazakhstan (Kazakhstan).

Croatia.²⁰ In these countries, we have fund-level data for the following periods: Kazakhstan – 2001 only, Poland – 1999–2001, and Croatia Q1–Q3, 2002 only. For the purposes of the analysis we create a pooled cross-section using 2001 data from Kazakhstan and Poland, and 2002 data from Croatia. To make the Croatian data comparable to the data from the other two countries, we rescale them to bring them up to a year (four quarters), then apply a CPI deflator to bring them to 2001 prices. This gives 37 observations in total (17 from Poland, 7 from Croatia, 13 from Kazakhstan).²¹

We look at three measures of costs per account: (i) as a share of average wages in the country, (ii) in US\$ using market exchange rates, and (iii) in US\$ using PPP rates of exchange.²² In each case, we regress costs per account on a constant, the number of accounts, and account size (assets per account). To allow for country-specific factors we introduce a dummy for Kazakhstan and a dummy for Croatia which measure the

²⁰ Hungary is excluded from this regression exercise owing to the non-transparent nature of its cost data.

²¹ As more data become available over time allowing us to include more countries and consider changes within countries over time it should become possible to refine this preliminary analysis.

²² In Kazakhstan, the cost measures include both the costs of pension companies and the costs of asset managers.

Table 6. *Administrative costs per account*

	Costs as % of average wages			Costs in US\$			Costs in US\$ (PPP)		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Assets per account	0.017*** (9.07)	0.019*** (9.84)	0.019*** (10.00)	0.010 (1.05)	0.016* (1.89)	0.016* (1.90)	0.015*** (4.03)	0.019*** (5.31)	0.019*** (5.30)
Number of accounts			-1.89e-09** (-2.11)			-9.14e-06 (-1.58)			-0.00002* (-1.76)
Dummy = 1 for Kazakhstan		-0.0037** (-2.68)	-0.004*** (-3.03)		-25.92*** (-3.39)	-28.14*** (-3.70)		-48.36*** (-2.96)	-52.55** (-3.28)
Dummy = 1 for Croatia		-0.0009 (-0.58)	-0.002 (-1.19)		2.14 (0.23)	-2.48 (-0.26)		1.28 (0.07)	-9.17 (-0.48)
Constant	0.0037*** (5.60)	0.0049*** (5.81)	0.006*** (6.05)	22.52*** (4.32)	28.97*** (4.93)	34.81*** (5.09)	45.76*** (5.22)	57.22*** (5.48)	70.42*** (5.58)
R ²	0.70	0.76	0.78	0.03	0.31	0.36	0.32	0.47	0.52
Adj R ²	0.69	0.73	0.76	0.003	0.25	0.28	0.30	0.43	0.46

difference in costs in these countries relative to costs in Poland other things being equal.

Although preliminary, a number of findings arise from the analysis in Table 6. In general, the explanatory variables do a fairly good job of explaining variations in costs per account. Over three quarters of the variation in cost per account expressed as a share of average wages can be explained by the number of accounts, account size, and the dummies ($R^2=0.78$). The influence of these factors is a little lower on costs per account expressed as PPP dollars ($R^2=0.46$), and the least when costs are expressed in market dollars ($R^2=0.28$). The superior goodness of fit when costs are expressed in terms of wages is not surprising in the light of the importance of salary costs discussed earlier.

In general, costs per account decrease with the number of accounts (i.e. there are economies of scale) and increase with account size. Economies of scale are most strongly observed when costs are expressed as a share of average wages, and least strongly observed when costs are in market dollars. Indeed in the latter case, the coefficient on the number of accounts is insignificant.

The intercept term provides an estimate of the size of 'fixed' costs per account or that portion of costs which is unrelated to number of members or account size. The figures in Table 6 suggest that fixed costs are of the order of 0.6% of average wages per annum.²³ In terms of dollars per account, fixed costs are \$35 per account per year at market rates of exchange, and \$70 per account per year at PPP.²⁴

3.5 What do costs imply for the size of individual accounts?

While the estimates in the previous section cannot be treated as definitive, they do provide some insight into the cost of running second pillar accounts in the context of the countries under study. The size of fixed costs has important implications for the minimum size of second pillar accounts. The expected return from the second pillar is equal to the expected return on savings less fees. Assuming there are no supernormal profits, fees will likely equal costs. If costs have a fixed element, this could disproportionately impact returns from small accounts. Where second pillar accounts are small, either because covered wages are low or because contribution to the second pillar is limited to a small share of the covered payroll, the costs of introducing second pillar accounts may well outweigh the potential benefits. Tables 7 and 8 attempt to quantify the size of second pillar accounts that is 'compatible' with the costs estimated in the previous section.

In Table 7 we estimate reduction in yield using our estimates of fixed costs from the first column in Table 6 (where fixed costs are expressed as a share of average wage), while in Table 8 we estimate reduction in yield using estimates from the third column in Table 6 (where fixed costs are expressed in PPP US\$ per annum).²⁵ In order to

²³ The 95% confidence interval is 0.4–0.8% of average wages per year.

²⁴ The 95% confidence intervals are \$21–49 per account per year and \$44–96 per account per year respectively.

²⁵ For the simulations we use an average of the relevant intercept terms. Fixed costs (as a share of average wage) are taken as 0.5% of wages per annum. In dollars per annum, fixed costs are assumed to be \$29 per account (market rates of exchange) and \$58 per account (PPP).

Table 7. *Minimum size of second pillar*

Using estimate of fixed costs as a share of wages from Table 6

Contribution rate (percent of wages)	Reduction in yield
10 %	0.98
9 %	1.01
8 %	1.05
7 %	1.10
6 %	1.16
5 %	1.25
4 %	1.39
3 %	1.63
2 %	2.16
1 %	4.39

Note: Simulations are for full career workers (40 years) whose wages grow at 2 % per annum and whose pillar 2 investments earn 4 % per annum.

Table 8. *Minimum size of second pillar*

Using estimate of fixed cost in PPP US dollars per account from Table 6

Contribution rate	Reduction in yield at different levels of covered wage (PPP US\$ per year)						
	1000	4000	7000	10000	13000	16000	19000
1	NA	NA	NA	5.46	3.8	3.02	2.56
2	NA	NA	3.49	2.45	1.98	1.72	1.55
3	NA	4.2	2.35	1.79	1.52	1.36	1.26
4	NA	3.02	1.88	1.5	1.31	1.2	1.12
5	NA	2.45	1.62	1.34	1.19	1.1	1.04
6	NA	2.11	1.46	1.23	1.11	1.04	0.99
7	NA	1.88	1.35	1.16	1.06	0.99	0.95
8	NA	1.72	1.27	1.1	1.01	0.96	0.93
9	NA	1.6	1.2	1.06	0.98	0.94	0.9
10	5.46	1.5	1.16	1.03	0.96	0.92	0.89

Note:

¹ Simulations are for full career workers (40 years) whose wages grow at 2 % per annum and whose pillar 2 investments earn 4 % per annum.

² Wages refer to covered wages in PPP.

NA: Charges are greater than contributions.

compute reduction in yield we need an estimate of total cost, including both fixed and variable costs. For the variable cost element we take a rate that, for average rates of contribution, would (in combination with the fixed cost element) yield a reduction in

yield of approximately 1%.²⁶ In other words, we ‘parameterize’ our simulations such that for average rates of contribution, the combination of fixed and variable costs is such as to result in a reduction in yield that is equivalent to what is observed on average in the countries under study.

Table 7 presents estimates of reduction in yield for second pillar accounts of different sizes, ranging from 1% to 10% of wages, assuming there is a fixed fee of 0.5% of wages and a management fee of 0.73% per annum. For contribution rates as low as 1%, the reduction in yield is over 4%. However, as the contribution rate increases the reduction in yield falls. For contribution rates above 10%, reduction in yield is below 1%. (Note that at contribution rates of 8%, reduction in yield is 1.05, the initialized value.)

Table 7 provides a number of insights on the ‘minimum’ size of the second pillar.

- If second pillar accounts can be expected to earn over the long term no more than 4–5% per annum then accounts which are smaller than 1% of wages are simply not viable: net returns (gross return minus reduction in yield) would be negative.
- If second pillar accounts are to be justified on the grounds that they would earn more than first pillar accounts, then they need to earn more (on a net basis) than the rate of return in the first pillar. The rate of return in the first pillar (given stable population and dependency ratios) is given by the rate of growth of productivity which in the long run is of the order of 2% per annum. Assuming expected returns of the order of 4–5%, second pillar accounts need to be large enough such that the reduction in yield stays below 2% (and preferably below 1.5% or so) in order that returns are higher than the first pillar by a comfortable margin. Estimates in Table 7 suggest that second pillar accounts should be at least 3–4% of wages or larger for second pillar accounts to be justified on rate of return grounds.²⁷

These insights are developed further in Table 8 which presents reductions in yield for second pillar accounts of different sizes, assuming there is a fixed fee of US\$58 per account and management fee of 0.76% per annum. Unlike Table 7 where reduction in yield is a function of contribution rates alone, in Table 8 reduction in yield is sensitive both to wage levels and to contribution rates. It shows that for any given contribution rate, the smaller the level of wages the greater the reduction in yield, and, for any given level of wages, the greater the contribution rate the lower the reduction in yield.

- According to the estimates in Table 8, for low wage countries (represented by wages lower than PPP US\$1,000 per annum) a second pillar is simply not a

²⁶ Specifically, for Table 7 we determine what level of management fee would result in a reduction in yield of 1.049 if there is a fixed fee equal to 0.5% of average wage. Contribution to the second pillar is assumed to be 8% of wages (the average contribution in the countries under study). We find this to be 0.73%. For Table 8, we determine what level of management fee would result in a reduction in yield of 1.049 if there is a fixed cost of \$58 per account. Contribution is assumed to be 8% of wages. We find the management fee to be 0.76%.

²⁷ Sensitivity analysis, available on request from the authors, bears out these conclusions for plausible variations in assumptions.

viable option as costs would exceed contributions. Even at wages of US\$4,000 per annum, most second pillars would be hard to justify, as reduction in yield is above 1.5% for all but the largest second pillar conceivable (10% of wages).

- At the other end of the spectrum, in a high wage country (represented by wages greater than PPP US\$19,000 per annum) a second pillar that was as small as 2% of wages could be justified, as the reduction in yield on 2% accounts is of the order of 1.5%.
- For countries with PPP wages of the order of US\$7,000–10,000 per annum (typical of low/middle middle income countries) a second pillar would have to be of the order of 4–6% wages to be justifiable on rate of return grounds. For richer middle income countries, a smaller second pillar of 2–3% of wages would appear to be justified.

4 Conclusions and emerging lessons

The following lessons suggest themselves from the early experiences on charges and costs and charges in the ECA region.

First, there is a strong case for greater transparency with respect to both costs and charge structures in the region. This has a number of dimensions.

- In countries such as Hungary, the institutional arrangements are such that costs are not fully transparent. This is related to a number of features, most notably the setting up of pension fund societies as non-profit mutual companies, investment in which (by sponsoring agencies) cannot be reflected in equity or claims on future income, and the lack of separation in both the legal and the accounting sense of the pension fund and the managing company. This, fundamentally, militates against obtaining a full understanding of costs in the system, and hinders effective supervision of the system by the regulator.
- Compounding the lack of institutional clarity in Hungary is the fact that pension societies are not required to be fully transparent about the charges they impose. For example, they do not have to declare the level of management fees explicitly when they credit net returns to individual accounts. Not only does this make the management fees difficult to know, this increases the scope for collusive behavior among pension societies in the declaration of net returns.
- Even where pension companies are obliged under the law to reveal charges explicitly (as for example in Kazakhstan, Poland, and Croatia), the impact of charges may not be fully apparent to members. This is owing to the fact that charge structures are fairly complex, leading to confusion as to the exact number and types of charges and their precise impact. Measures that encourage pension companies to summarize the impact of charges and present them periodically to members in an intelligible way would go a long way towards making charges more transparent. The experience from Chile may be relevant here. The Superintendency of Pension Funds in Chile collects information on the fees and net rates of return for all pension companies. This information is then provided

by pension companies to their members, along with their annual statement of accounts. Through a series of simple tables arranged on two sides of a single page, members are made aware of how much they paid their pension company, and how fees would have been different (in dollars per annum) had they been with the lowest cost provider. Members are also given information on how the net rate of return in their pension company compared with other companies over five time horizons: 12 months, 36 months, 72 months, 11 months, and the period since the inception of the fully funded system (July 1981). By ensuring the distribution of this information alongside the annual statement of accounts, the Superintendency lowers the marginal costs of distribution, while at the same time ensuring that information is provided in a timely manner.

Second, related to our first point, there is a strong case for greater consumer education as members understanding of charges seems to be very poor. Education efforts are probably best focused on improving the understanding of fees and net returns, and providing guidance on switching between providers. It would also be important to target both pension system members and as well as journalists (especially economic or financial correspondents) who are likely to influence members through their professional activities.

It is sometimes argued that transparency and consumer awareness could both be raised by simplifying the fee structure. In particular, since up-front fees are the most widely understood form of fees and are not regressive in impact, restricting the fee structure to up-front fees alone would increase transparency and facilitate comparisons across funds.²⁸ However, charge structures that are based on up-front fees alone do not provide incentives to maximize returns. They also encourage pension companies to focus on attracting and retaining older and (or) higher wage members with larger accounts to the detriment of younger and lower wage members. Moreover, there are other ways of increasing transparency, for example through greater and more simplified disclosure of fees as discussed previously. Given the disincentives in the system and the alternatives for increasing transparency, restricting the charge structure to up-front fees would not appear justified.

It is worth pointing out that in addition to charge levels, the structure of charges may well affect industry performance and regulatory effectiveness. A greater reliance on up-front fees, which allow for earlier payback to pension companies, would make the industry more contestable. With more entrants and more competition in the industry, there may be more information available to the regulator through, for example, charging behavior of the market leader. Where fees are back-loaded, the industry is less contestable. Other things being equal, there may be fewer entrants, less information for the regulator, and potentially greater scope for regulatory ‘capture’ by the small number of dominant firms. This is a further argument for a mixed structure of fees in addition to the incentive issues raised earlier.

Third, the main policy lever used among transition economies – price controls – has had mixed results. While price controls are arguably working in Poland, this is not the

²⁸ The simplest fee structure would be a flat fee per account, however this would impact small accounts disproportionately.

case in Croatia or in Kazakhstan. In Croatia, prices/charges appear too high given the functions performed by pension companies. In Kazakhstan, prices/charges were initially set too low. While legislative ceiling have been raised it is not clear whether they are sufficiently high. Indeed there is an ongoing debate as to whether prices are sufficient to encourage growth in coverage, particularly in rural areas, or the kind of international portfolio diversification that that may be necessary in the Kazakhstan context (World Bank, 2003). The fact that the main sources of costs remain unclear adds to regulatory difficulty.

The experience from the countries reviewed suggests that the use of price controls as the main policy lever is likely to be successful where there is strong regulatory capacity, with the necessary technical staff to analyze costs and fees and a governance structure that is free of undue influence. Where this is lacking, price controls may be less effective. This would suggest an element of caution when endorsing price controls as an approach for addressing high administrative charges. Where price controls may be the preferred approach, it would be important to pay attention to the building of the necessary regulatory capacity.

Fourth, while a central agency for contribution collection and record-keeping holds much promise in theory, as it is practiced in Croatia it does not seem to have resulted in lower charge ratios for Croatian affiliates. This suggests that the existence of a central agency or ‘clearing house’ is not a sufficient condition for lowering charges/costs.

Fifth, three of the four case countries have adopted fairly serious price and non-price disincentives to switching. While this has limited marketing ‘wars’ and the frequent, economically unproductive, and costly switching between funds induced by marketing activities that have been common in some Latin American countries in the early stages of reform, these measures have almost certainly imposed costs in terms of constraining choice (e.g. by reducing the speed with which individuals may exit poor providers). While it is too early to pass judgment on these measures, they deserve to be followed more closely.

Sixth, all countries studied have outlawed flat charges on the grounds that they are regressive. Yet our analysis suggests pension companies incur some fixed costs that are essentially the same for all accounts irrespective of size. The absence of flat fees means that the accounts of the poor are less attractive to pension companies. This could have implications for how pension companies chose to market themselves, the type of service they provide small account holders etc. Curiously, this impact of flat fees is not much discussed in countries studied, although retaining high coverage is policy priority for all of them.

Finally, this paper makes an attempt to estimate the fixed costs implied by the institutional arrangements commonly found in the region and the impact on account size in the second pillar. Although our estimates are preliminary they suggest that given the levels of costs, a second pillar is not a viable option for low income countries in the region. For the typical low/middle middle income country in the region that chooses to introduce a second pillar, accounts would have to be of the order of 4–6% of wages to be justified on rate of return grounds. As more cost information becomes available it would be important to examine the robustness of these estimates and refine the findings.

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Annex: Reduction in yield under various scenarios

Scenario	Former legislation	New legislation																																
Poland	<table border="1"> <tr> <td>r \ w</td> <td>2</td> <td>4</td> <td>6</td> </tr> <tr> <td>2</td> <td>0.95</td> <td>0.92</td> <td>0.91</td> </tr> <tr> <td>3</td> <td>0.97</td> <td>0.94</td> <td>0.92</td> </tr> <tr> <td>4</td> <td>0.99</td> <td>0.96</td> <td>0.93</td> </tr> </table>	r \ w	2	4	6	2	0.95	0.92	0.91	3	0.97	0.94	0.92	4	0.99	0.96	0.93	<table border="1"> <tr> <td>r \ w</td> <td>2</td> <td>4</td> <td>6</td> </tr> <tr> <td>2</td> <td>0.77</td> <td>0.75</td> <td>0.73</td> </tr> <tr> <td>3</td> <td>0.79</td> <td>0.76</td> <td>0.74</td> </tr> <tr> <td>4</td> <td>0.81</td> <td>0.78</td> <td>0.75</td> </tr> </table>	r \ w	2	4	6	2	0.77	0.75	0.73	3	0.79	0.76	0.74	4	0.81	0.78	0.75
r \ w	2	4	6																															
2	0.95	0.92	0.91																															
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Croatia	<table border="1"> <tr> <td>r \ w</td> <td>2</td> <td>4</td> <td>6</td> </tr> <tr> <td>2</td> <td>1.15</td> <td>1.66</td> <td>2.16</td> </tr> <tr> <td>3</td> <td>1.15</td> <td>1.66</td> <td>2.16</td> </tr> <tr> <td>4</td> <td>1.16</td> <td>1.66</td> <td>2.16</td> </tr> </table>	r \ w	2	4	6	2	1.15	1.66	2.16	3	1.15	1.66	2.16	4	1.16	1.66	2.16	<table border="1"> <tr> <td>r \ w</td> <td>2</td> <td>4</td> <td>6</td> </tr> <tr> <td>2</td> <td>1.26</td> <td>1.26</td> <td>1.27</td> </tr> <tr> <td>3</td> <td>1.26</td> <td>1.26</td> <td>1.27</td> </tr> <tr> <td>4</td> <td>1.26</td> <td>1.27</td> <td>1.27</td> </tr> </table>	r \ w	2	4	6	2	1.26	1.26	1.27	3	1.26	1.26	1.27	4	1.26	1.27	1.27
r \ w	2	4	6																															
2	1.15	1.66	2.16																															
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r \ w	2	4	6																															
2	1.26	1.26	1.27																															
3	1.26	1.26	1.27																															
4	1.26	1.27	1.27																															
Kazakhstan	<table border="1"> <tr> <td>r \ w</td> <td>2</td> <td>4</td> <td>6</td> </tr> <tr> <td>2</td> <td>0.25</td> <td>0.45</td> <td>0.64</td> </tr> <tr> <td>3</td> <td>0.26</td> <td>0.45</td> <td>0.64</td> </tr> <tr> <td>4</td> <td>0.26</td> <td>0.45</td> <td>0.65</td> </tr> </table>	r \ w	2	4	6	2	0.25	0.45	0.64	3	0.26	0.45	0.64	4	0.26	0.45	0.65	<table border="1"> <tr> <td>r \ w</td> <td>2</td> <td>4</td> <td>6</td> </tr> <tr> <td>2</td> <td>0.91</td> <td>1.21</td> <td>1.52</td> </tr> <tr> <td>3</td> <td>0.91</td> <td>1.21</td> <td>1.52</td> </tr> <tr> <td>4</td> <td>0.91</td> <td>1.21</td> <td>1.52</td> </tr> </table>	r \ w	2	4	6	2	0.91	1.21	1.52	3	0.91	1.21	1.52	4	0.91	1.21	1.52
r \ w	2	4	6																															
2	0.25	0.45	0.64																															
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Notes:

¹ The simulations are for a hypothetical individual with a 40 year contribution history. r refers to the rate of return per annum while w refers to wage growth per annum.

² For details of the former and new legislation, see Table 3.