

# Contents

<i>List of Figures and Tables</i>	<i>page xi</i>
<i>Preface</i>	<i>xxi</i>
<i>Acknowledgments</i>	<i>xxiii</i>
<b>1. Introduction</b>	<b>1</b>
<b>2. Population Developments in a Global Context</b>	<b>8</b>
<b>A Brief Historical Perspective</b>	<b>8</b>
<b>Underlying Forces Driving Changing Population Structures</b>	<b>11</b>
<b>Changing Life Expectancy</b>	<b>13</b>
<b>Changing Fertility Rates</b>	<b>17</b>
<b>Immigration Rates</b>	<b>20</b>
<b>Evolving National Populations</b>	<b>22</b>
<b>National Population Age Structures</b>	<b>25</b>
<b>The Prospects of Growing Age Dependency</b>	<b>33</b>
<b>3. Pension Options, Motivations and Choices</b>	<b>35</b>
<b>Retirement Plans as a Consumption Allocation Mechanism</b>	<b>36</b>
<b>Approaches to Financing Pensions</b>	<b>37</b>
<b>Factors behind National Retirement Choices</b>	<b>43</b>
<b>Why Pay-Go Pensions Became So Popular</b>	<b>50</b>
<b>New Realities Spur New Considerations on Pension Choices</b>	<b>55</b>
<b>Demographics and the Efficiency of Alternative</b>	
<b>Pension Systems</b>	<b>56</b>
<b>Labor Supply Patterns and the Efficiency of Alternative</b>	
<b>Pension Systems</b>	<b>57</b>
<b>Interest Rates and Wage Growth and the Efficiency of</b>	
<b>Alternative Pension Systems</b>	<b>64</b>

Aging Populations in the Context of Total Economic Dependency	68
New Realities Raise Concerns for Policy Analysts	78
4. Pension Structures and the Implications of Aging	81
Contemporary Approaches to Providing Income Security for the Elderly	81
Public First Tiers in the Retirement System	82
Public Second Tiers in the Retirement System	84
Employer-Sponsored Third Tiers in the Retirement System	88
Retirement Ages, Retirement Patterns, and Retiree Populations	92
Retiree Income Levels	101
Sources of Retiree Income	103
5. Retirement Systems and the Economic Costs of Aging	107
Consumption and Savings Rates under Alternative Retirement Systems	108
Retirement Saving Versus Consumption Loans	109
Another View of Consumption and Savings Rates under Retirement Systems	112
Retirement Patterns under Alternative Retirement Systems	121
Retirement Living Standards under Alternative Retirement Systems	122
Pension Funding Realities	123
What Appears to be Pension Funding Might Not be Real Funding	123
Funded Pensions Cannot Overcome All Demographic Challenges	125
Pension Transitions are Costly and Raise Equity Issues	126
6. Beyond Pensions to Health Care Considerations	129
Age and Health Consumption Patterns	130
Factors Other than Aging Driving Up Health Costs	135
Longer Lives and Health Care Consumption in Old Age	139
Explaining the Intensity Spiral in Health Care Consumption	143
Policy Concerns over the Evolution of Health Technology	145
Long Term Care Provision in Changing Societies	149
The Health Care Dilemma	151
7. Labor Supply and Living Standards	154
Building Blocks for Producing National Output	156
The Story behind Changing Labor Productivity Levels	160
Improving Productivity Leads to Improved Living Standards	163
Demographics and Output Demand	165
The Linkages between Output Demand and Labor Demand	172
The Foundation for Growth in the Coming Decades	181

Retirement Systems' Role in Determining Retirement Burden Levels	185
8. Too Many Wants or Too Few Workers?	195
Framework and Baseline for Viewing the Labor Market Options	196
Increasing Labor Force Participation Generally	199
Increasing Female Labor Force Participation Rates	201
Increasing Labor Force Participation of Older People	202
Increasing Labor Force Participation of Young Adults	203
Matching Labor Force Participation Rates of High-Rate Countries	207
Immigration as a Potential Source of Added Workers	210
9. Alternatives to Finding More Workers	214
Capital Deepening as a Possible Alternative to Additional Labor Supply	214
Utilizing Existing Human Capital More Efficiently	228
10. Aligning Retirement Policy with Labor Needs	234
The Role of Plan Structure on Retirement and Work Behavior	235
Factors Affecting Early Labor Force Withdrawals	241
Effects of Occupational Programs on Labor Markets	247
Workforce Incentives Created by Non-Employment Benefits	258
11. Funding Pensions and Securing Retiree Claims	264
Case Studies of Nations Shifting to Funded Pensions	264
Asset Management and Utilization in Funded Pension Systems	269
Investing Pension Funds in Government Bonds	272
Motivations for Individual Account Systems and Their Operation	276
Foreign Investment as a Means to Achieving Fair Returns	279
Potential International Demand for Pension Fund Savings	285
12. Macroeconomic Policies for Improved Living Standards	290
Pursuing Higher Labor Force Participation Levels	290
Pursuing Higher Rates of Productivity Growth	293
Spreading the Benefits of Added Economic Growth	297
Investing in Developing Economies	305
13. Risks Associated with Alternative Public Policies	315
Insuring Against Economic Risks during the Working Period	317
Insuring Against Economic Risks during the Retirement Period	330
The Political Economy Risks in Aging Societies	338
The Risks of Denial of a Problem	338
Political Risks from Delay in Addressing Aging Issues	345

14. Roadmap to the Future	351
Principles for Reforming National Pensions	352
Maintain Disability and Early Survivors Programs as Social Insurance	352
Continue to Provide Extra Protection to the Economically Vulnerable	353
Saving Through Retirement Savings Programs Increases Flexibility	354
Pension Reform Should Provide Equitable Treatment Between Participants	356
Pension Funding Transition Costs Should be Spread Across Generations	356
Pension Accounting Should be Done on an Accrual Basis	357
The Pension System Should be Structured to Encourage Economic Efficiency	357
Assure that Risks Borne by Individuals are Diversified and at Tolerable Levels	358
Keep Administrative Costs Low	358
Some Portion of Retirement Savings Should be Annuitized at Retirement	359
Annuitization Should be on a Joint and Survivor Basis for Couples	359
Reforms Should Assure Long-Term Solvency of the Pension System	360
Pension Reforms Should be Explicit and Transparent	360
Benefits in Reformed Pension Systems Should be Transparent	361
Pension Reforms Should be Undertaken as Soon as Possible	361
Principles for Reforming Employer-Based Pensions	363
Bringing Health Care under Control	364
Facilitating Cross-National Capital Flows	368
Conclusion	370
<i>Index</i>	373