

GOLDEN GROWTH

Restoring the lustre of the European economic model



EBSCO Publishing : eBook Collection (EBSCOhost) - printed on 5/20/2015 10:45 AM via UNIVERSIDAD RAFAEL

AN: 451836; Gill, Indermit S., Raiser, Martin.; Golden Growth: Restoring the Lustre of the European

Economic Model Account: s4245486



Account: s4245486

GOLDEN GROWTH

Restoring the lustre of the European economic model



INDERMIT S GILL MARTIN RAISER

TOGETHER WITH:
ANDREA MARIO DALL'OLIO, TRUMAN PACKARD,
KASPAR RICHTER, NAOTAKA SUGAWARA,
REINHILDE VEUGELERS, JUAN ZALDUENDO

EBSCO Publishing : eBook Collection (EBSCOhost) - printed on 5/20/2015 10:45 AM via UNIVERSIDAD RAFAEL LANDIVAR AN: 451836 ; Gill, Indermit S., Raiser, Martin.; Golden Growth : Restoring the Lustre of the European Economic Model Account: s4245486

© 2012 International Bank for Reconstruction and Development / International Development Association or

The World Bank 1818 H Street NW Washington DC 20433 Telephone: 202-473-1000 Internet: www.worldbank.org

1 2 3 4 15 14 13 12

This work is a product of the staff of The World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent.

The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Rights and Permissions

The material in this work is subject to copyright. Because The World Bank encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for noncommercial purposes as long as full attribution to this work is given.

For permission to reproduce any part of this work for commercial purposes, please send a request with complete information to the Copyright Clearance Center Inc., 222 Rosewood Drive, Danvers, MA 01923, USA; telephone: 978-750-8400; fax: 978-750-4470; internet: www.copyright.com.

All other queries on rights and licenses, including subsidiary rights, should be addressed to the Office of the Publisher, The World Bank, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2422; e-mail: pubrights@worldbank.org.

ISBN (paper): 978-0-8213-8965-2 ISBN (electronic): 978-0-8213-8966-9 DOI: 10.1596/978-0-8213-8965-2

Library of Congress Cataloging-in-Publication Data

Gill, Indermit Singh, 1961–
Golden growth: restoring the lustre of the European economic model / Indermit Gill and Martin Raiser; together with Andrea Mario Dall'Olio ... [et al.]. p. cm. Includes bibliographical references.
ISBN 978-0-8213-8965-2 (alk. paper) — ISBN 978-0-8213-8966-9 (electronic)
1. Europe—Economic conditions—1945——Econometric models. 2. Economic indicators—Europe. I. Raiser, Martin. II. Title.
HC240.G523277 2012

330.94-dc23 2011045981

Design and typesetting by Zephyr www.wearezephyr.com

EBSCO Publishing: eBook Collection (EBSCOhost) - printed on 5/20/2015 10:45 AM via UNIVERSIDAD RAFAEL LANDIVAR
AN: 451836; Gill, Indermit S., Raiser, Martin.; Golden Growth: Restoring the Lustre of the European Economic Model

Account: s4245486

Contents

FOREWORD	
ACKNOWLEDGMENTS	ii
OVERVIEW: RESTORING EUROPE'S LUSTRE	_
CHAPTER 1: THE EUROPEAN GROWTH MODEL	35
SPOTLIGHT ONE: EUROPE — CONVERGENCE MACHINE	7-
CHAPTER 2: TRADE	87
CHAPTER 3: FINANCE	131
CHAPTER 4: ENTERPRISE	187
CHAPTER 5: INNOVATION	245
CHAPTER 6: LABOR	29 ⁻
CHAPTER 7: GOVERNMENT	353
SPOTLIGHT TWO: GREENING EUROPE'S GROWTH	417
CHAPTER 8: GOLDEN GROWTH	433
SELECTED INDICATORS	457





Box	xes	4.5:	Productivity drivers are similar outside the European Union216
1:	The unmet precondition of the common currency —labor mobility29	4.6: 4.7: 5.1:	The features of a global firm218 The Swedish model222 Google—A uniquely
1.1:	Europe's economic model and its standard of living38	5.2:	American innovation247 Defining innovation249
1.2:	Europe's postwar consensus: the social market economy39	5.3:	Is R&D/GDP a good measure of innovation performance? 256
2.1: 2.2:	Volkswagen and Škoda93 Germany is not Europe's China94	5.4:	Why don't lagging countries do more R&D?257
2.3:	Scope of the goods trade data95	5.5:	Where does entrepreneurship
2.4: 2.5:	EU integration is a process	5.6:	flourish?
2.6:	of exports of goods100 How big should the Single Market	6.1:	convergence and innovation 269 Is a flexible labor market
	for Services be? Clues from Canada111		necessary for successful monetary union?310
2.7:	Can liberalization of services contribute to productivity growth?	6.2:	Do temporary contracts make labor markets flexible?313
	Evidence from the Czech Republic112	6.3:	Denmark's "flexicurity": increasing contestability, the gentler way318
2.8:	Measuring the sophistication of services exports is much more	6.4:	Germany's Hartz reforms: modernizing social welfare and
2.01	difficult than for goods114	6.5:	unemployment benefits319 Labor mobility is low even
2.9:	Reviving the reform agenda for the European single market 117	0.5.	in countries in the European neighborhood:
2.10:	Facilitating the services trade in the Western Balkans120		the case of Ukraine327
2.11:	Ukraine would gain a lot if it could get freer access to the European	6.6:	Beyond the white cliffs: immigration to the
2.12:	Union's agricultural market122 (Not) extending the single market to the European Union's eastern	6.7:	United Kingdom331 The smarter North Americans? Immigration to Canada332
3.1:	partners—the case of Georgia 123 Economic adjustment in three	7.1: 7.2:	Data and groupings
3.2:	small European economies143 Understanding the growth-	7.3:	government bureaucracies363 Europe's tax burden is caused by
	vulnerability tradeoff147	7.5	high labor and indirect taxes, in spite of low corporate taxes366
3.3:	Country experiences with macroprudential policies151	7.4:	Nordic social protection programs
3.4:	The new European architecture for financial stability152	7.5:	seem to be different372 The north performs better than
3.5:	The pros and cons of debt-relief interventions157		predicted in the models, and the south and the EU candidate
3.6:	Facilitating private debt resolution without public resources173	7.6:	countries worse373 Private social spending is
4.1: 4.2:	Is staying local now riskier? 198 Firms in Europe are becoming		low in Western Europe, especially the south375
4.3:	more similar—in size199 What do successful exporters	7.7:	Randomized public health, Oregon377
	look like?207 What attracts FDI?—	7.8:	Some countries have managed to reform pensions in spite of a
4.4:	Decent infrastructure and	70.	growing elderly population 382 Debt and growth384
	good regulations212	7.9: 7.10:	Improving regional development policies—follow the Irish

7.111 Changes in behavior and policies enable countries to adjust to aging. 392 P. Reversal of private persion pillars. 394 older populations in new members states and Croatia. 397 successful monetary routon. 434 the United States. 449 Peland and Croatia. 441 Crisis-proofing finance: the Creck Republic and Ganada and Singapore. 444 R. Crisis-proofing finance: the Creck Republic and Singapore. 445 Republic and Singapore. 446 Republic of Koren. 478 Republic of Koren. 478 Republic of Koren. 478 Republic of Koren. 478 Republic of Koren. 479 Republic of Koren. 478 Republic of Koren. 479 Republi						
to adjust to aging	7.11:		6:		1.8:	
Particular persion pillars. 394 395 81. The structural prerequisites of a colder populations in new member states and croatia. 397 81. The structural prerequisites of a successful monetary union. 438 82. Internal mobility. reland and the United States. 439 839. Walue-added leaders in 400 (constant). 840. Crisis-proofing finance: the consumption of the world and and Singapore. 441 841. Crisis-proofing finance: the consumption of the world. 842. Value-added leaders in 610vak 843. Requibilic and Canada. 844. Public service delivery. Finland and Singapore. 445 846. Public service delivery. Finland and Singapore. 447 847. Labor legislation: Demmark 848. Reducing private debt: sweden and the United States. 849. Reducing private debt: sweden and the United States. 849. Reducing private debt: sweden and the United States. 849. Reducing private debt: sweden and the United States. 849. Reducing private debt: sweden and the United States. 849. Reducing private debt: sweden and the United States. 849. Reducing private debt: sweden and the United States. 840. Territary education 450 the united States. 450 841. Inmigration policies. Sweden and the United States. 451. Social spending is higher in Europe. 452. Social spending is higher in Europe. 453. Social spending is higher in Europe. 454. Europe's pension systems have to support people for many more years. 455. Europea and the Republic of Korea. 458. Reducing private debt: sweden and the United States. 459. Reducing private debt: sweden and the United States. 450. Europea and pagen. 451. Social spending is higher in Europe. 452. Social spending is higher in Europe. 453. Reducing private debt: sweden and the United States. 459. Reducing private debt: sweden and the United States. 450. European ser less mobile, even within their own countries. 450. European ser less mobile, even within their own countries. 451. Crisis-proofing finance. 452. Consequence in Europe. 453. Reducing private debt: sweden and the United States. 454.						
pension pillars						
suggested probletions for older populations in new older populations in new member states and Croatia 357 8.1: The structural prerequisites of a successful monetary union 434 8.2: Internal mobility: Ireland and the United States 440 8.3: Managing financia foreign direct investment: poland and Croatia 441 8.4: Crisis-protofing finance: the Czech Republic and Ganada 443 8.5: Value-added leaders: the Slovak Republic and Singapore 445 8.6: Public service delivery: Finland and singapore 445 8.7: Labor legislation: Demark and the United States 446 8.8: Reducing private debt. Sweden and the Republic of Korea 449 8.9: RFO policy: Switzerland and the United States 450 8.10: Irertary education: the United States 450 8.11: Immigration policies: Sweden and Canada (and the United States 450 8.11: Immigration policies: Sweden and Canada (and the United States 450 8.11: Immigration policies: Sweden and Canada (and the United States 450 8.12: Social security: Iceland and Japana 450 8.13: Reducing public debt: Turkey and New Zealand 453 8.14: Social security: Iceland and Japana 450 8.15: Immigration policies: Sweden and Canada (and the United States 450 8.16: In Europe, a rapid convergence in living standards—not much elsewhere 45 8.17: Labor legislation: Demark and the United States 450 8.18: Immigration policies: Sweden and Canada (and the United States 450 8.19: Immigration policies: Sweden and Canada (and the United States 450 8.19: Immigration policies: Sweden and Canada (and the United States 450 8.19: Immigration policies: Sweden and Canada (and the United States 450 8.19: Immigration policies: Sweden and Canada (and the United States 450 8.19: Immigration policies: Sweden and Canada (and the United States 450 8.19: Immigration policies: Sweden and Canada (and the United States 450 8.19: Immigration policies: Sweden and Canada (and the United States 450 8.19: Immigration policies: Sweden and Canada (and the Uni	7.12:		7:		1.9:	
older populations in new member states and croatia						
member states and Croatia	7.13:					
8.1 The structural prerequisites of a successful monetary union			8:		1.10:	
successful mohetary union	0 -	977	_			
the United States. 40 8.3: Managing financial foreign drow since the mid-1990s. 15 6.4: Crisis-proofing finance: the Czech Republic and Canada. 443 8.5: Value-added leaders: the Slovak Republic and Canada. 443 8.6: Public service delivery: 15 6.6: Public service delivery: 15 6.7: Labor legislation: Denmark and the United States. 446 8.8. Reducing private debt: Sweden and the United States. 449 8.9. ReD policy: Switzerland and the United States. 450 8.10: Tertiary education: 17 8.11: Immigration policies: Sweden and Canada (and the United States. 451 8.12: Social security: 17 8.13: Social protection explains the difference in government size between Europe and its peers. 24 8.13: Reducing public debt: 25 8.14: Immigration policies: Sweden and Canada (and the United States) 451 8.15: Ligope, a rapid convergence in licunge, a rapid convergence in licunge, a rapid convergence in licunge, standards—not much elsewhere in licunge stated involves Europe. 451 8.16: More trade in services in Europe, targed conversions and the regulation stated involves Europe. 452 8.16: In Europe, a rapid convergence in licunge, foreign capital has boosted growth in emerging economies in Europe, and the exploit of sore and the licunded States and the licunded S	8.1:		9:		1.11:	. , .
## larger economies has slowed down since the mile 1-spos	0 -					
down since the mid-1990s. 15 direct investment. Poland and Croatia. 441 8.49. Crisis-proofing finance: the Creek Republic and Canada. 443 8.51. Value-added leaders: the Slovak Republic and Singapore. 444 8.62. Public service delivery: Finland and Singapore. 445 8.73. Labor legislation: Denmark and the United States. 446 8.74. Republic of Korea. 448 8.75. Reducing private debt. Sweden and the Republic of Korea. 448 8.76. Reducing private debt. Sweden and the United States. 449 8.76. Republic of Korea. 448 8.77. Labor legislation: Denmark and the United States. 449 8.77. Labor legislation: Denmark and the United States. 449 8.78. Republic of Korea. 448 8.79. Reducing private debt. Sweden and the United States. 450 8.70. Tertury education: 451 8.70. Tertury education: 452 8.71. Imagination policies: Sweden and and United States. 450 8.72. Social security: 162 8.73. Reducing public debt: 162 8.74. Reducing public debt: 162 8.75. Reducing public debt: 162 8.76. Reducing public debt: 162 8.77. Reducing public debt: 162 8.78. Reducing public debt: 162 8.79. Reducing public debt: 162 8.70. Reducing public deb	8.2:		10:		1.12:	-
direct investment: Poland and Croatia. 441 8.4: Crisis-proofing finance: the vounger, more R&D-intensive products. 45 8.5: Value-added leaders: the Slovak Republic and Ganada443 8.6: Public service deliverey: Finland and Singapore445 8.7: Labor legislation: Demark and the United States466 8.8: Reducing private debt: Sweden and the United States467 8.9: R&D policy: Switzerland and the United States469 8.9: R&D policy: Switzerland and the United States450 8.10: Immigration policles: Sweden and Canada (and the United States)450 8.11: Immigration policles: Sweden and Canada (and the United Kingdom and the United Kingdom and Canada (and Line Kingdom and Canada (and Line Kingdom and Canada (and Line Kingdom and Cana	0					
Poland and Croatia. 441 8.4: Criss-proofing finance: the Czech Republic and Canada. 443 8.5: Value-added leaders: the Slovak Republic and Singapore. 444 8.6.6: Public service delivery: Finland and Singapore 445 8.7: Labor legislation: Denmark and the United States. 446 8.8. Reducing private debt. Sweden and the Republic of Korea. 448 8.9. RE& Dollicy. Switzerland and the United States. 449 8.9. RE& Dollicy. Switzerland and the United States. 449 8.10: Tertiary education: 450 8.11: Imigration policies: Sweden and Canada (and the United Kingdom and the United Kingdom and the United Kingdom and the United States. 450 8.11: Social security: 451 8.12: Social security: 452 8.13: Reducing public debt: 512 8.13: Reducing public debt: 513 8.14: Social security: 452 8.15: Social security: 452 8.16: In Imigration policies: Sweden and Canada (and the United Kingdom and the United States. 450 8.17: In In Europe, a rapid convergence in living standards—not much elsewhere in living standards—n	0.3:	9 9				
8.4: Crisis-proofing finance: the Creek Republic and Ganada 443 8.5: Value-added leaders: the Slovak 8.6: Public service delivery: Finland and Singapore 45 8.7: Labor legislation: Demark and the United States 46 8.8: Reducing private debt: Sweden and the Republic of Korea 48 8.9: Rêf0 policy: Switzerland and the United States 49 8.10: Tertiary education: the United States 49 8.10: Tertiary education: the United States 50 Coernments in Europe and its peers 24 8.11: Immigration policies: Sweden and Canada (and the United Kingdom and the United States) 45 8.12: Social security: Icleand and Japan 453 8.13: Reducing public debt: Turkey and New Zealand. 453 8.14: In Europe, a rapid convergence in living standards—not much elsewhere. 42 2. Almost half of the global goods trade involves Europe 6. 3. More trade in services in Europe based growth in emerging economies 8 4: In Europe, foreign capital has boosted growth in emerging economies 8 5: European enterprises have delivered jobs, productivity, and exports. 41 1.5: In Europe, foreign capital has boosted growth in emerging economies 8 5: European enterprises have delivered jobs, productivity, and exports. 41 1.6: Europe's pondion systems have to support people for many more years 19 14: Europe's pension systems have 19 14: Europe's labor force will shrink, while North America's will grow by a quarter 20 20 (soernments in Europe are big. 22 21 (soernments in Europe are big. 22 22 (soernments in Europe are big. 22 23 (surper) southern Europe last Europe is catching up to it. 3.5: Europe's population could shrink by North, and Eastern Europe is catching up to it. 3.5: Europe's population could shrink by North America's will grow within their own countries. 20 60 Governments in Europe are big. 22 24 25. Small differences in annual pensions pending. 24 26. Small differences in annual pensions prehement size between Europe and its peers 24 26. Greening production but not consumption 24 27. Social security: 41 28. The Europe and Europe, 15 28. Europe and the united States,			11:		1.13:	
Czech Republic and Canada 43 13: Outspending the rest of the world 18.5: Value-added leaders: the Slovak Republic and Singapore 445 13: Europe's pension systems have to support people for many more years 19. Labor legislation: Demmark and the United States 446 14: Europe's labor force will shrink, and the United States 446 15: Europe's labor force will shrink, and the United States 446 15: European are less mobile, even within their own countries 20 between Europe and its peers 24 17: Social protection explains the United States 450 18.1: Immigration policies: Sweden and Canada (and the United Kingdom and the United States) 451 Leland and Japan 452 18.1: Social security; Leland and Japan 452 18.1: Reducing public debt: 19. Western Europe has to reduce fiscal deficits by 6 percent of GDP, Turkey and New Zealand 453 17. Europe shand he world 450 high-growth countries 45. European sorted in Services in Europe, but apparently in more traditional activities 84. In Europe, but apparently in more traditional activities 84. In Europe, foreign capital has boosted growth in emerging ecronomies 85. European enterprises have to support people for many more years 19. Europe's productivity deaders are lagging behind the United States 55. Southern Europe lags the EU15 North, and Eastern Europe lags the EU15 North America's will grow catching up to it. 20. European sorted the United States 20. European are less mobile, even within their own countries 20. European are less mobile, even within their own countries 20. European are less mobile, even within their own countries 20. European are less mobile, even within their own countries 20. European are less mobile, even within their own countries 20. European are less mobile, even within their own countries 20. European are less mobile, even within their own countries 20. European sorted the United States 20. European sorted for even within their own countries 2	0 4.				444.	
8.5: Value-added leaders: the Slovak Republic and Singapore	0.4:		42.	·	1.14:	
Republic and Singapore	0		12:	-		
8.6: Public service delivery: Finland and Singapore 445 8.7: Labor legislation: Denmark and the United States. 446 8.8: Reducing private debt: Sweden and the Republic of Korea 448 8.9: R&D policy: Switzerland and the United States. 449 8.9: R&D policy: Switzerland and the United States. 449 8.10: Tertiary education: 450 8.11: Immigration policies: Sweden and the United States. 450 8.11: Immigration policies: Sweden and Canada (and the United Kingdom and the United States) 451 8.12: Social security: 1celand and Japan. 452 8.13: Reducing public debt: 450 8.13: Reducing public debt: 450 8.14: In Europe, a rapid convergence in living standards—not much elsewhere in living standards—not much elsewhere. 451 8.16: In Europe, but apparently in more traditional activities. 851 8.17: In Europe, concein capital has boosted growth in mererging economies. 851 8.18: European enterprises have delivered jobs, productivity, and exports. 425 8.19: The European enterprises have delivered jobs, productivity, and exports. 426 8.19: The European Union's new 1918 in more years. 192 8.19: Europea sibar force will shrink, while North America's will grow by a quarter. 200 8.10: Europeans are less mobile, even within their own countries. 20 8.10: Europeans are less mobile, even within their own countries. 20 8.10: Europeans are less mobile, even within their own countries in Europe are big 22 8.118: European and the United States. 55 8.119: European enterprises have delivered jobs, productivity, and exports. 51 8.10: Southern Europe lags the EUrops cath land the United States. 55 8.110: Southern Europe lags the EUrops cath land the United States. 55 8.110: Southern Europe lags the EUrops cath land the United States. 55 8.110: Southern Europe lags the EUrops cath land the United States. 55 8.110: European begeficary, big in over the next 40 years. 51 8.119: European begeficary, big in over the next 40 years. 52 8.118: Europeans are less mobile, even within their own countries perse 22 8.118: Europeans are less mobile, even within their ow	0.5:		42.		4 45.	
Finland and Singapore 445 8.7: Labor legislation: Denmark and the United States	0 4.		13.		1.15:	
 8.7: Labor legislation: Denmark and the United States	8.0.	,				
8.8: Reducing private debt: Sweden and the Engiblic of Korea. 448 8.9: R&D policy: Switzerland and the United States. 449 8.10: Tertiary education: 450 8.11: Immigration policies: Sweden and Canada (and the United Kingdom and the United States. 450 8.12: Social security: 53 8.13: Reducing private debt: 5weden and Canada (and the United Kingdom and the United States. 450 8.13: Reducing private debt: 5weden and Canada (and the United Kingdom and the United States. 451 8.12: Social security: 50 8.13: Reducing public debt: 50 Turkey and New Zealand. 453 8.13: Reducing private debt: 5weden and Canada (and follows the United States) 451 8.14: In Europe and its peres. 245 8.15: Social security: 50 8.16: Figures 8.17: Line Surope and its peres. 245 8.18: In Europe and its peres. 245 8.19: Small differences in annual pensions per beneficiary, big in overall public pensions spending. 245 8.19: Reducing private debt: 5xocial security: 5xocial se	2 7.		14.		1 16.	
8.8. Reducing private debt: Sweden and the Republic of Korea	0.7.		14.		1.10.	
and the Republic of Korea	Q Q.					
 8.9: R&D policy: Switzerland and the United States	0.0.		15.	7 1	1 17.	
the United States	8 0.		13.		1.17.	
 8.10: Tertiary education: the United Kingdom and the United	0.9.		16.		1 12.	
the United Kingdom and the United States	8 10.				1.10.	
between Europe and its peers 24 Snall differences in annual pensions per beneficiary, and the United States) 451 big in overall public pensions per beneficiary, big in overall public pensions per beneficiary, big in overall public pensions per beneficiary, big in overall public pensions pending 24 Snall differences in annual pensions per beneficiary, big in overall public pensions per beneficiary, big in overall public pensions pending 24 Snall differences in annual pensions per beneficiary, big in overall public pensions spending 24 Snall differences in annual pensions per beneficiary, big in overall public pensions spending 24 Snall differences in annual pensions per beneficiary, big in overall public pensions spending 24 Snall differences in annual pensions per beneficiary, big in overall public pensions spending 24 Snall differences in annual pensions per beneficiary, big in overall public pensions spending 24 Snall differences in annual pensions per beneficiary, big in overall public pensions spending 24 Snall differences in annual pensions per beneficiary, big in overall public pensions pending 24 Snall differences in annual pensions per beneficiary, and the United States, and the United States, and some trade in Japan	0.10.		17.			
8.11: Immigration policies: Sweden and Canada (and the United Kingdom and the United States)					S1 11	
Canada (and the United Kingdom and the United States)	8.11:		18:		3	,
8.12: Social security: lecland and Japan	•				S _{1.2} :	
8.12: Social security: lecland and Japan					01020	
Seland and Japan	8.12:				S1.3:	
8.13: Reducing public debt: Turkey and New Zealand			19:			
Figures 1: In Europe, a rapid convergence in living standards—not much elsewhere	8.13:				S1.4:	•
Figures 1.1: Europe is the most open region in the world						
the transition, especially in the former Soviet Union		16.11c, 6.11c, 17c, 17c, 17c, 17c, 17c, 17c, 17c,	20:		S1.5:	
Figures 1.1: Europe is the most open region in the world						
1.2: In Europe, a rapid convergence in living standards—not much elsewhere	Fia	ures	1.1:			former Soviet Union77
in living standards—not much elsewhere				in the world40	S1.6:	Productivity got a big boost
elsewhere	1:		1.2:	Convergence in incomes was faster		
2: Almost half of the global goods trade involves Europe				in Europe than elsewhere41		not so much in Europe78
trade involves Europe		elsewhere4	1.3:		S1.7:	
3: More trade in services in Europe, but apparently in more traditional activities	2:	Almost half of the global goods		to high-growth countries42		composition of productivity
Europe, but apparently in more traditional activities	_		1.4:			
more traditional activities	3:				S 1.8:	
4: In Europe, foreign capital has boosted growth in emerging economies			1.5:			
boosted growth in emerging economies					S1.9 :	
economies	4:			especially in the EU43		
5: European enterprises have delivered jobs, productivity, and exports			1.6:	Emerging European countries	2.1:	
delivered jobs, productivity, and exports						
and exports12 substantially across Europe44 2.3: The European Union's new	5:				2.2:	
5005tdrittidity deross Edrope			1.7:			
members are more important		and exponts12		substantially across Europe 44	2.3:	
						members are more important

	partners for the EU15, the EU15 less for the new94	3.3:	Foreign banks are emerging Europe's unique feature135
2.4:	Machinery and transport equipment are half of the exports	3.4:	In Europe, capital flows to countries with lower incomes136
	of new member states95	3.5:	In Europe, capital also flows
2.5:	Automobiles are a big part of		to high-growth countries136
	the goods trade in Europe96	3.6:	Investments rose strongly
2.6:	Intermediates are about half of the		in Europe as external
	European Union's trade, but two-		balances improved137
	thirds of the trade in Asia98	3.7:	Emerging Europe's real effective
2.7:	New EU members are more		exchange rates appreciated 141
	important for the EU15 for trade in	3.8:	Emerging Europe showed rapid
2.8:	intermediate goods98		economic adjustment but slow
2.0.	Growing intra-industry ties in the east, but faster within the	2.01	economic recovery141
	European Union99	3.9:	The closer a country gets to the European Union, the more
2.9:	Advanced and emerging Europe		stable its bank financing142
,.	are trading more sophisticated	3.10:	Fiscal positions became
	intermediate goods101	3.10.	procyclical in 2004–08145
2.10:	Emerging Europe's exports	3.11:	Revenues lost to the Great
	have become more complex101	_	Recession, 2009146
2.11:	Emerging Europe has	3.12:	Countries showed varying
	developed sizable backlogs		experiences with credit growth and
	in trade facilities102		asset prices148
2.12:	Services exports are growing fast	3.13:	Emerging Europe is solvent,
2 42.	in the new member states107 Modern—more tradable—services		the EU cohesion countries
2.13:	are growing faster almost	244	less so159 Greater debt exposure in
	everywhere107	3.14:	Southern Europe, more
2.14:	Internal trade tendencies in the		equity exposure in the east159
	European Union vary across	3.15:	Most economies in emerging
	countries 108	33.	Europe are liquid160
2.15:	Western Europe does most	3.16:	EU cohesion countries have higher
	of the internal trade in		levels of public and private
	services, 2008108		debt than emerging
2.16:	The single market works better		European countries161
	for traditional services110	3.17:	Credit to firms
2.17:	Services are contributing even		grew faster than to households
2.18:	more to growth in Europe110 The European Union has a		in most emerging
2.10.	comparative advantage	3.18:	European countries162 Household indebtedness rose in
	in services113	3.10.	emerging Europe, but remains
2.19:	India and the United States		below EU15 levels163
	have more sophisticated	3.19:	A few firms in a few countries are
	services exports than the		at risk in emerging Europe 166
	European Union116	3.20:	Only few households in few
2.20:	European economies have		emerging European countries are
	made trade easier119		excessively indebted169
2.21:	Professional services remain	3.21:	Households in emerging Europe can
	tightly regulated119		withstand economic shocks170
2.22:	Not all countries are making trade	3.22:	Some banks in some emerging
24.	in business services easier 119 Fifteen years of financial		European countries are at risk 171
3.1:	integration show that	4.1:	European enterprises did well
	Europe is different134	4.2:	in 1995–2009 190 The east giving chase,
3.2:	Capital flows in emerging	4.2.	the south falling behind197
J ===	Europe are particularly large134		197

4.3:	In the EU12, most	4.23:	In the EU15, size matters more than	5.13:	The United States
	jobs created were in services		country for exports219		outperforms Europe on
	and construction200	4.24:	In a difficult business environment,		management quality266
4.4:	In the EU15, a loss of manufacturing		firms stay small and operate more	5.14:	The United States has
	jobs, replaced by small service		informally219		the largest venture capital
	enterprises201	4.25:	Firms in Southern and emerging		market in the world267
4.5:	Microenterprises in		Europe are most likely to survive,	5.15:	Most European countries produce
	the EU15 South cannot pay		but shrink220		fewer graduates than the
	for skilled workers202	4.26:	In a better business environment,		United States or Japan27
4.6:	Productivity levels were lower		firms are less likely to shrink 220	5.16:	Europe is falling
	in the south and lower still	4.27:	,		behind the United States in
	in the east202		(regulatory quality, firm size, and		top university rankings27
4.7:	The east has been catching up, the		employment ratios, 2007)223	5.17:	
_	south has been falling behind 202	A4.1:	Correspondence between product		strong in Europe's top performers
4.8:	In the EU12, manufacturing and		market regulation indicator		as in the United States272
	services are more productive,		and principal components	5.18:	The United States has
	construction less203		analysis index237		the largest market share for
4.9:	Manufacturing drives productivity	A4.2:	Quality of regulations index		international students274
	growth in the EU15 center, services		based on <i>Doing Business</i>	5.19:	Switzerland, Scandinavia,
	in the north204		indicators, 2012238		and Germany are global
4.10:	Exporting—Central	5.1:	Mind the gap: convergence		innovation leaders274
	Europe's specialty205		followed by slowdown in Europe's	6.1:	Self-reported measures of
4.11:	The size and productivity		productivity relative to the		happiness are positively associated
	of firms influence a country's		United States248		with job satisfaction296
	exports, late 2000s206	5.2:	Europe has a large innovation	6.2:	People who work fewer hours
4.12:	The south has become less		deficit relative to both the United		report higher levels of job
	attractive to foreign investors,		States and East Asia's high-income	6	satisfaction296
	the east more so208		economies250	6.3:	In advanced Europe, a clearer
4.13:	Not all countries in emerging	5.3:	Europe's leaders invest as much in innovation as the United		tradeoff between preferences for work over leisure297
	Europe are equally attractive for foreign investors208		States and Japan251	6 1.	In emerging Europe, a tradeoff
4 4 4 .	Foreign firm are more	F 4:	In Europe's catching-up economies	6.4:	between work and leisure is
4.14:	productive and have	5.4:	innovation is not always R&D252		less apparent297
	faster productivity growth209	5.5:	Innovation: another north-	6.5:	The importance of work is
4.15:	In the EU12, FDI is positively	2.2.	south gap in Europe254	0.5.	only weakly associated with
+2.	associated with productivity	5.6:	Innovation matters much more		the importance of family
	and jobs209	5.0.	in "old" Europe than in "new"		in the EU15298
1 16.	In the EU12, infrastructure,		Europe in explaining differences	6.6:	In emerging Europe, the importance
+	credit, FDI, and regulations are		in productivity growth255	0.0.	of work and family are closely
	correlated with productivity 211	5.7:	The role of Yollies among leading		associated298
4.17:	In the EU15, firms with a foreign	3-7-	innovators is bigger in the United	6.7:	Europe's approach is distinct—
,,.	presence are more productive		States than in Europe or Japan259		but there are differences
	and grow faster213	5.8:	Yollies spend the most on R&D		within Europe299
4.18:	Investing abroad is related to		and U.S. Yollies are the most	6.8:	The decline in hours worked
	higher productivity growth214		R&D-intensive of all firms259		was faster in Europe than
4.19:	Northern and Continental Europe	5.9:	Innovation-based		elsewhere in the OECD302
	get the bulk of FDI215		growth sectors261	6.9:	Europe has both productivity
4.20:	In the EU15, FDI and regulations	5.10:	Only the United States focuses		leaders and laggards302
	are the closest correlates of		its R&D efforts in innovation-	6.10:	The decline in work participation
	productivity215		based growth sectors261		has been faster in Europe302
4.21:	Southern Europe underperforms	5.11:	Europe has fewer Yollies in	6.11:	Europeans are retiring at earlier
	the rest of the EU15 in all aspects	-	innovation-based growth sectors,		ages than they used to302
	but access to credit217		but they are as R&D-intensive as in	6.12:	The big reduction in the number
4.22:	Microfirms generate half the		the United States262		of young European workers will
	employment and a third of the	5.12:	The supply of innovation gets a		happen before 2030303
	value added in the EU15 South 217		lot of attention, supply-demand	6.13:	Aging in Europe is matched by
			interactions too little265		a "surplus" of working-age

	people in the Middle East	6.32:	Language, housing, and health
	and North Africa304		care are the main impediments
6.14:	To keep the size of the labor force		to mobility 326
	stable, Europeans have to work	6.33:	European countries host fewer
	longer and more productively, but		immigrants than other
	a demographic deficit of young		OECD countries329
	people will probably persist 305	7.1:	Government size in G7 countries,
6.15:	Better-educated people are		1960, 1990, 2000, and 2010357
	more likely to participate in	7.2:	Government size, 1995, 2007,
	the labor market307		and 2010357
6.16:	Skills are an important	7.3:	Density of government size in
	constraint for many firms in		Europe357
	emerging Europe307	7.4:	Government size in 1995
6.17:	Cognitive skills are adequate in		and 2010357
	most European countries309	7.5:	Social spending determines
6.18:	Minimum wages in the		the size of governments 358
	newest EU member countries	7.6:	Social transfers increased
	are increasing faster311		fastest in the south359
6.19:	Employment protection is	7.7:	Social spending increased
	converging through liberalization		in the 2000s360
	in more rigid labor markets 312	7.8:	Government spending is higher
6.20:	The wedge created by income		in richer countries, and income
	taxes and social insurance		growth is slower364
	contributions is highest in Italy314	7.9:	Growth is slower as
6.21:	Labor costs have		government gets bigger364
	been rising quickly in the	7.10:	Quality of government
	EU's newer members314		declines from north to south
6.22:	In Emerging Europe, the tax		and west to east 370
	wedge for lowest-wage	7.11:	Governments reduce inequality
	earners tends to be high314		more in Europe371
6.23:	In much of the European	7.12:	Private spending makes the United
	Union, membership in labor		States the biggest health care
(unions has been declining 315		spender in the world
6.24:	Informal self-employment is	7.13:	Western Europe has good health
	most prevalent in Greece,		and education outcomes 377
6 25.	Italy, Portugal, and Spain316	7.14:	The south spends more on
0.25:	In Europe, active labor programs		pensions than others381
	are associated with higher labor	7.15:	The burden of social transfers
6 26.	force participation317	- 46.	grew most in the south
0.20.	Rigid employment protection	7.16:	The eastern partnership countries
	legislation is associated with		increased social transfers
6 27.	lower employment rates317 Rigid laws and high taxes	- 4	the most
0.2/.	are associated with higher	7.17:	Public debt rose everywhere
	unemployment, active		during the crisis except in
	labor programs with lower	740.	the emerging peers384 Markets have learned to look
	unemployment317	/.10:	
6 28.	Europeans are less mobile 320	740.	at fiscal vulnerabilities
	Europeans—especially in the east—	7.19:	The biggest declines in
0.29.	are less internally mobile321	7 30:	growth will be in Europe
6 20:	Low labor mobility can keep	7.20:	Spending on investment,
0.30:	unemployment high323		education, and health was
6.31:		7 24.	protected during the crisis388
0.31.	associated with higher rates	7.21:	Large fiscal adjustments are
	of employment in Europe325	7 22.	not unusual389 Illustrative adjustment needs,
	or employment in Europe325	7.22:	median, percentage of GDP392
			median, percentage of dur392

7.23:	Illustrative adjustment needs and	2.4:	EU services exports are more	A6.2:	Regression estimation results:
	projected increase in health and		sophisticated than those of the rest		employment rate
	pension expenditures, median,		of the world115	A6.3:	Regression estimation results:
	percentage of GDP392	3.1:	Private imbalances in the East,	۸.	unemployment rate344
7.24:	Pensions are more		a more complicated story in the	A6.4:	Regression estimation results:
	generous in Western		South		long-term unemployment rate 345
	Europe than elsewhere393	3.2:	Precrisis use of macroprudential	7.1:	Illustrative adjustment needs
7.25:	Social insurance contribution		policies in eight emerging		by 2030, median, percentage
	rates in Europe are often high395		European countries150	Λ	of GDP391
7.26:	Raising the retirement age helps	3.3:	Firm characteristics and use of bank	A7.1:	Political institutions
	stabilize pension spending396		credit in emerging Europe163	Λ	influence government size 403
7.27:	Public health spending has	3.4:	Firm debt is held by the	A7.2:	Regression results for growth
0-	increased faster than GDP 397		financially sophisticated		and initial government
7.28:	Young cohorts are shrinking		in emerging Europe 164	Λ	expenditures, 1995 to 2010404
C	in Eastern Europe398	3.5:	Few households in emerging	A7.3:	Regression results for growth and
S2.1:	Europe is the world's largest	A = 4.	Europe have debt		initial government revenues in
Ca a.	importer of carbon dioxide 418	A3.1:	Foreign savings and growth—	Λ = 4.	Europe, 1995–2010406
32.2:	Advanced Europe has cut air		EU12 and EU candidate countries are different177	A/.4:	Regression results for growth and
Ca a.	pollution in half since 1990420	۸۵.۵۰			initial social transfer spending in
32.3:	Europe's north is leading the	A3.2:	EU membership as an anchor	۸	Europe, 1995–2010
Co. 4.	push for cleaner energy421 Western imports,		for institutional development178	A/.5:	Regression results for growth
32.4.	Eastern emissions 422	4.1:	European enterprises, benchmarked		and average public investment spending in Europe, 1995–2010406
Sa	•	Λ 4 4.	quantitatively and globally192	۸-۲ د۰	
S2.5:	Germany, France, Sweden,		Sample composition	A/.0.	Regression results of quality of government on initial
	and Italy have helped business	A4.2.	Firm-level productivity growth,		government size408
	by encouraging renewable	Λ 4 3.	2003-08, EU12 countries229	۸-,	
S2 6.	energy425 China now emits the most	A4.3.	Firm-level productivity growth, 2003-08, EU15 countries231	A/./.	OLS regression results of people's values on initial
32.0.	carbon dioxide428	Δ 4 4 .	Firm-level productivity growth,		government size410
S2.7:	But China's per capita carbon	74.4.	2003-08, non-EU countries233	Δ- 2٠	Public spending helps improve
32./.	dioxide emissions may not	Δ4 Ε.	Transition matrix of survival	Ај.о.	health, spending on public
	significantly grow beyond the	74.5.	firms, by subregion (percent) 239		schooling is less effective 410
	European Union's429	5.1:	A large share of companies	Δ7.01	Regression results for log public
	2429	3.1.	in Europe innovate, less so	۸٫۰۶۰	pensions as a share of GDP 411
			in the east253	Δ7 10:	Regression results for log social
Tab	oles	5.2:	Europe specializes in sectors with	717.10.	transfers as a share of GDP 411
		3.2.	medium R&D intensity, the United	8.1:	Benchmark countries for
1:	Relentless growth in the United		States in high intensity260	•	selected policies435
	States, revival in Asia, and a	5.3:	Average deal size of venture	8.2:	Europe's imperatives, instruments,
	postwar miracle in Europe5	3.3.	capital investment268	0.2.	and policy priorities439
2:	30 questions, 30 answers30	5.4:	United States universities		
1.1:	Strengths and shortcomings of	3.1	produce more patents, and if		
_	Europe's growth model65		picked up by business, the		
S1.1:	Relentless growth in the United		patents have greater impact273		
	States, a miracle in Europe, and	6.1:	Similar policies can lead to		
	resurgence in Asia, 1820–200874		different outcomes300		
2.1:	A greater variety of intermediate	6.2:	Internationally, the Irish are		
	goods are being traded99		the most mobile Europeans322		
2.2:	Western Europe drives much	6.3:	Not a single market for		
	of the services trade106	_	new members324		
2.2:	Western Europe drives much	6.4:			
	of the services trade106	-	Europe attract fewer		
2.3:	The single market has increased		high-skilled immigrants than		
	services trade and FDI by about 25		countries in North America 330		
	percent 109	A6.1:	Regression estimation results:		
			activity rate342		

Foreword

"Now grows together what belongs together," former West German Chancellor Willy Brandt famously remarked in Berlin in November 1989. He was talking about German reunification, but his statement might well apply to European integration. Over the past 20 years, the European Union has grown by 12 Central European members and has helped millions get to high incomes. The single market now stretches from Lisbon to Łódź and from the North Cap to Nikosia. Trade and capital flows unrivaled in economic history have fueled the European convergence machine. Shared aspirations of Europeans in the east and the west, the north and the south, for prosperity that is both sustainable and socially inclusive have brought the continent together.

This economic integration makes it difficult to view one part of the continent in isolation. So this report looks at Europe as a whole—from the Atlantic Ocean to the Azov Sea. It is unusual for a development institution like the World Bank to be writing about countries in Western Europe that reached high-income status many years ago. But the geographical scope of this report is appropriate, and not just because what happens in the west affects prospects in the east. It is appropriate because the European Union's new member states in the east have undergone an unprecedented transformation over the past two decades—and their experiences have lessons for their western peers struggling with the structural exigencies of an integrated continent. It is also appropriate because the experience of Southern Europe with economic integration—and common monetary policy in particular—can help Central and Eastern Europe.

The Polish authorities, who inspired the work on this report in preparation for their presidency of the European Union in the second half of 2011, understood from the outset that a report on European growth had to be about European integration. But it was also clear that it had to be about the lessons that Europeans can learn from each other and from successful countries in other parts of the world, to adjust better to an integrated Europe and a changing world. The Polish Presidency's report to the European Council in October 2011, "Towards a New Consensus on Economic Growth," previews some of this report's conclusions. These, in turn, are informed by the successes of countries in Europe and around the world in policy areas that are pertinent today. The subjects range from regulating banks to reducing public debt; the countries range from the Czech Republic to Canada, and from Turkey to New Zealand.

When work on this report started, the world was recovering from the global economic crisis. Growth had returned to Europe too, but it was fragile. As the report went to print, Europe was again in crisis. Poland is not a member of the eurozone, and this report is not about the euro. It is about the future of the European economic model. But as Radek Sikorski, the Polish foreign minister, said in Berlin in November 2011: "The biggest threat to the security and prosperity of Poland would be the collapse of the eurozone."

Ĭ

Equally serious, trouble in the eurozone prompted questions about the achievements of European integration. It should not. The message of this report for Europe is this: in reacting to the debt crisis, do not abandon the attractive features of the European model. The report distinguishes three main attributes of the European economic and social model. The first is economic and political enlargement. The second is the combination of enterprise and social responsibility. The third is a focus on social inclusion and solidarity. These attributes have produced a prosperity that has been shared between people and countries in a manner not seen before or elsewhere. They should be nourished.

To be sure, though, some policies and institutions that have shaped Europe's progress need to be changed. The analysis in this report unveils a graduated reform agenda. Some parts of the European model require smaller adjustments: these include trade and finance, the two main drivers of the European convergence machine. Other parts require deep reform, such as labor and government. In between are enterprise and innovation, whose organization across the continent ranges from world class to mediocre.

Three objectives should guide policy makers. First, the single market should be strengthened to unleash new drivers of productivity growth. Second, enlargement should continue and fully integrate the 100 million people in Southeastern Europe, and help another 75 million in the eastern partnership benefit from the same European aspirations and institutions. Third, Europe's global economic influence, which has been enabled and shaped by the values of inclusion and enterprise, should be preserved.

But this report is not just for Europe. It is also for people and policy makers outside the continent who follow Europe's progress and are interested in its prospects. Its message for them is: don't count Europe out. There are countries—both advanced and emerging—where the European model has been made to work, and the results are gratifying. Europe's trials must not intimidate those working toward progressive goals; its successes should inspire them.

The report draws inspiration and its title from the golden rule of economic growth, which requires that today's decisions are viewed by later generations neither with regret nor resentment. The shared aspirations of Europeans for inclusive development have led to decades of success, and Europe's development has been distinct. If they can learn the right lessons from the reforms in and outside Europe, its development will be distinguished. This would be good not just for Europe, but for the world as well.

Marek Belka

President, National Bank of Poland Chairman, World Bank/IMF Development Committee

Philippe Le Houérou

Vice President, Europe and Central Asia
The World Bank

ii

Acknowledgments

This report was written by a team led by Indermit Gill, Chief Economist, Europe and Central Asia Region, and Martin Raiser, Country Director for Turkey at the World Bank. The core team members were Andrea Maria Dall'Olio, Truman Packard, Kaspar Richter, Naotaka Sugawara, Reinhilde Veugelers, and Juan Zalduendo. The work was carried out under the overall supervision of Philippe Le Houérou, Vice President, Europe and Central Asia Region.

Marek Belka, President, National Bank of Poland, and Chairman, World Bank–International Monetary Fund Development Committee, and Jean Pisani-Ferry, Director of Bruegel, provided their insights, encouragement, and guidance at all stages of this project.

Many people participated in the writing of the report. The main authors and contributors were:

- The Overview was written by Indermit Gill, with inputs from Naotaka Sugawara.
- Chapter 1 (The European Growth Model) was written by Indermit Gill and Martin Raiser, with contributions from Naotaka Sugawara and Marc Teignier-Baqué.
- Chapter 2 (Trade) was written by Indermit Gill and Yue Li, with contributions from Alberto Behar, Ileana Cristina Constantinescu, Caroline Freund, Susanna Gable Lundstrom, and Saurabh Mishra.
- Chapter 3 (Finance) was written by Juan Zalduendo, with contributions from Zsolt Darvas and Naotaka Sugawara.
- Chapter 4 (Enterprise) was written by Andrea Maria Dall'Olio, with contributions from Mariana lootty De Paiva Dias, Naoto Kanehira, Federica Saliola, Minh Cong Nguyen, Raian Divanbeigi, Louise Grogan, and Miriam Bruhn.
- Chapter 5 (Innovation) was written by Martin Raiser and Reinhilde Veugelers, with contributions from William Maloney and Naotaka Sugawara.
- Chapter 6 (Labor) was written by Truman Packard and Johannes Koettl, with contributions from Indhira Santos, Basab Dasgupta, Claudio Montenegro, Isil Oral, and Lazar Sestovic.
- Chapter 7 (Government) was written by Kaspar Richter, Ewa Korczyc, and Paul Walsh, with contributions from Bartosz Witkowski, Maciej Bukowski, Kamil Wierus, Hans Pitlik, Margit Schratzenstaller, Igor Kheyfets, and Martin Cumpa.
- Chapter 8 (Golden Growth) was written by Indermit Gill and Martin Raiser, with contributions from Aleksandra Iwulska and Bryce Quillin.
- Spotlight One (Europe-Convergence Machine) was written by Bryce Quillin.
- Spotlight Two (Greening Europe's Growth) was written by Uwe Deichmann.
- The Selected Indicators tables were compiled by Naotaka Sugawara, who was also responsible for verifying the accuracy of statistics used or cited in the report.
- The Country Benchmarks summarizing global good practice were written by Aleksandra Iwulska, with contributions from Bryce Quillin.

Elena Kantarovich oversaw the production of the entire report. Aleksandra Iwulska and Rhodora Mendoza-Paynor provided support. Santiago Pombo Bejarano and Paola Scalabrin generously made resources at the Office of the Publisher available to the production team.

Bruce Ross-Larson was the principal editor, leading a team at Communications Development Incorporated, with Jonathan Aspin, Rob Elson, Gary von Euer, Jack Harlow, Abigail Heald, Emily Schabacker, and Christopher Trott.

Zephyr designed and typeset the report. Fidel Prokopovich created the graphics.

This task received financial and technical assistance from the Research Support Budget of the World Bank and the Europe and Central Asia Regional Studies Program, for which the team is grateful to Jean-Jacques Dethier and Willem van Eeghen. The many background papers made possible by this financial support were written by Alberto Behar, Caroline Freund, Susanna Lundstrom Gable, Saurabh Mishra, Kamila Fialova, Mihails Hazans, Benno Torgler, Martin Brown, Zsolt Darvas, Philip Lane, Swati Ghosh, Naotaka Sugawara, Juan Zalduendo, Steen Byskov, Roumeen Islam, Gary Schinasi, Aleksandar Stojkov, and Holger Wolf. Staff of the central banks and banking supervision agencies in eight countries contributed excellent accounts of monetary and financial sector policies: Tomislav Galac, and Evan Kraft (Croatia); Jan Frait, Adam Geršl, and Jakub Seidler (Czech Republic); Andres Sutt, Helen Korju, and Kadri Siibak (Estonia); Adám Banai, Júlia Király, and Márton Nagy (Hungary); Frosina Celeska, Viktorija Gligorova, and Aneta Krstevska (former Yugoslav Republic of Macedonia); Michał Kruszka and Michał Kowalczyk (Poland); Cristian Popa (Romania); and Turalay Kenc, Ibrahim Turhan, and Onur Yildirim (Turkey). All the background papers written for the report are available in the World Bank Policy Research Working Paper Series.

A panel of advisers chaired by Marek Belka provided guidance to the team at all stages of the project. For their interest, encouragement, and advice, the team is especially grateful to Irina Akimova, Antonio Borges, Ibrahim Çanacki, Božidar Đelić, Vitor Gaspar, Danuta Hübner, Adam Jasser, Michael John Hofmann, Jean-Pierre Landau, Jean Pisani-Ferry, Helga Maria Schmid, and Zoran Stavreski. Naturally, they are not responsible for any errors in the report, and its conclusions do not necessarily reflect their views.

The work of the team would not have been timely or relevant without the sponsorship and discipline provided by the Polish Presidency of the European Union Council. Paweł Samecki, Andrzej Raczko, and Agata Łagowska at the National Bank of Poland, and Mikołaj Dowgielewicz, Paweł Karbownik, Małgorzata Kałużyńska, and others at the Ministry of Foreign Affairs have been the report team's strongest allies. The authors owe a special debt of gratitude to Michał Krupiński for fostering a most fruitful relationship between the Polish Presidency and the World Bank.

Bruegel has been a valuable partner in this exercise from its very inception. The World Bank owes Zsolt Darvas, Jean Pisani-Ferry, André Sapir, Reinhilde Veugelers, and other colleagues at Bruegel an enormous debt.

iv

Colleagues at the European Commission generously gave their support and suggestions. The team would especially like to thank Marco Buti, Jean Claude Thébault, Michel Servoz, Vasco Cal, Philippe Legrain, and Margaritis Schinas. Reiner Martin and many colleagues at the European Central Bank's Convergence and Structural Analysis Section provided useful feedback. Eurostat staff overseeing the Structural Business Statistics promptly and patiently responded to the team's requests for information.

Charles Roxburgh and Jan Mischke of McKinsey Global Institute provided advice at an early stage of the work and useful comments on a draft of the report. The team gratefully acknowledges their help.

Many people at the World Bank have helped. Peter Harrold, Dirk Reinermann, Sebastian Stolorz, Mart Kivine, Thomas Laursen, Satu Kahkonen, Sophie Sirtaine, Lucio Vinhas de Souza, Lilia Burunciuc, Xavier Devictor, Kseniya Lvovsky, Markus Repnik, and Zeljko Bogetic have helped make the report better and engage policymakers more effectively. Bernard Hoekman, William Maloney, Aaditya Mattoo, Brian Pinto, and Michał Rutkowski provided constructive criticism and encouragement.

Others who have helped in various ways include Theodore Ahlers, Pedro Alba, Richard Baldwin, Bruno Bonansea, Carlos Braga, Otaviano Canuto, Rinku Chandra, Gerardo Corochano, Uwe Deichmann, Michael Emerson, Marianne Fay, Ana Margarida Fernandes, Chorching Goh, Daniel Gros, Stephane Guimbert, Borko Handjiski, Bridget Harrison-Dowd, Jesko Hentschel, Stella Ilieva, Roumeen Islam, Gregory Jedrzejczak, Elena Karaban, Katarina Mathernova, Shigeo Katsu, Andrew Kircher, Michael Klein, Dorota Kowalska, Jerzy Kwieciński, Jeffrey Lecksell, Laszlo Lovei, Marco Mantovanelli, Martin Melecky, Marialisa Motta, Mamta Murthi, Evgenij Nadjov, Julia Nielsen, Ngozi Okonjo-Iweala, John Pollner, Jean Louis Racine, Ana Revenga, Alexander Rowland, Pablo Saavedra, Luis Servén, Kristyn Schrader, Maria Shkaratan, Emily Sinnott, Sándor Sipos, Emilia Skrok, Mark Thomas, Michael Toman, Mehrnaz Teymourian, Volker Treichel, Marina Wes, and Sally Zeijlon. Finally, the team is grateful to members of the Regional Management Team of the Europe and Central Asia Region for their feedback on earlier drafts of this report.

The team thanks others who have helped in preparing and writing the report and wishes to apologize to anyone inadvertently overlooked in these acknowledgments.

νi

EBSCO Publishing : eBook Collection (EBSCOhost) - printed on 5/20/2015 10:45 AM via UNIVERSIDAD RAFAEL LANDIVAR AN: 451836 ; Gill, Indermit S., Raiser, Martin.; Golden Growth : Restoring the Lustre of the European Economic Model Account: s4245486

Overview

Restoring Europe's lustre

Fifty years ago, the American Economic Review published a short article titled "The Golden Rule of Accumulation." In it, Edmund Phelps, an American economist, proposed a simple rule for a nation's wealth to grow and provide the highest standard of living for its citizens—present and future. The rule essentially specified how much people had to work, save, and invest today so that future generations could be at least as well off as they were. The golden rule had European origins as well. The paper used the insights of economists from France, Hungary, the Netherlands, and the United Kingdom.² And just a few months before Phelps' article was published, a German economist, Christian von Weizsäcker had submitted a dissertation that proposed the same rule.3 In 2006, the Nobel Committee awarded the prize to Phelps for "his analysis of intertemporal tradeoffs in macroeconomic policy."





Many economists still consider the golden rule the most basic proposition of optimum growth theory. It is the inspiration for the title of this report, and forms the roots of its policy prescriptions. Following the golden rule means that today's Europeans work and consume just so much that future generations do not resent them for consuming too much, nor pity them for consuming too little. Keeping to the rule is perhaps the most telling sign of a country's—or a continent's—economic maturity.

Europe's growth is already different from other economies' in two aspects, reflecting its cultural and demographic maturity. Perhaps more than others around the world, Europeans want economic growth to be smarter, kinder, and cleaner, and they are willing to accept less for "better" growth. The single word that summarizes these ideals might be "golden."

Europe's growth will have to be golden in yet another sense. Economic prosperity has brought to Europeans the gift of longer lives, and the continent's population has aged a lot over the last five decades. Over the next five, it will age even more: by 2060, almost a third of Europeans will be older than 65 years. Europe will have to rebuild its structures to make fuller use of the energies and experience of its more mature populations—people in their golden years.

These desires and developments already make the European growth model distinct. Keeping to the discipline of the golden rule would make it distinguished. This report shows how Europeans have organized the six principal economic activities—trade, finance, enterprise, innovation, labor, and government—in unique ways. But policies in parts of Europe do not recognize the imperatives of demographic maturity and clash with growth's golden rule. Conforming growth across the continent to Europe's ideals and the iron laws of economics will require difficult decisions. This report was written to inform them. Its findings: the changes needed to make trade and finance will not be as hard as those to improve enterprise and innovation; these in turn are not as arduous and urgent as the changes needed to restructure labor and government. Its message: the remedies are not out of reach for a part of the world that has proven itself both intrepid and inclusive.

A distinctive model

It is common these days to hear Europeans calling for a "new growth model." The public debt crisis has shaken confidence not just in the euro but in Europe. Aging Europeans are being squeezed between innovative Americans and efficient Asians, it is said. With debt and demographics weighing down European economies, the argument runs that they will not grow much unless they discover radically new ways.

The end of complacency among Europeans is good, because developments in and outside the continent have made changes necessary. But loss of confidence could be dangerous. The danger is that in rushing to restructure and restart growth, Europe may throw out the attractive attributes of its development model with the weak ones. In fact, the European growth model has many strong points and enviable accomplishments.





Between 1950 and 1973, Western European incomes converged guickly toward those in the United States. Then, until the early 1990s, the incomes of more than 100 million people in the poorer southern periphery—Greece, southern Italy, Portugal, and Spain—grew closer to those in advanced Europe. With the first association agreements with Hungary and Poland in 1994, another 100 million people in Central and Eastern Europe were absorbed into the European Union, and their incomes increased quickly. Another 100 million in the candidate countries in Southeastern Europe are already benefiting from the same aspirations and similar institutions that have helped almost half a billion people achieve the highest standards of living on the planet. If European integration continues, the 75 million people in the eastern partnership will profit in ways that are similar in scope and speed.

It is no exaggeration to say that Europe invented a "convergence machine," taking in poor countries and helping them become high-income economies. Over the last four decades, the countries in Europe experienced a convergence in consumption levels that is unmatched (figure 1). Annual per capita consumption in the poorer parts of Europe grew by 4 percent while in the wealthier countries it increased at a still-impressive 2 percent. The rest of the world-except for East Asia—has seen little or no convergence. That is why the European model was so attractive. That is why European growth is unique.

Given Europe's diversity, it is not easy to identify a single "European growth model." There are big differences in how Italy and Ireland regulate work and enterprise, and how Greece and Germany balance fiscal policies and social objectives. There are big differences in what Spain and Sweden export, and how they regulate commerce. There are differences in how Portugal and Poland have regulated their banks, and not just because one of them shares a common currency while the other has one of its own. And there are differences in how Finland and France provide government services such as education and health.

But these differences in specifics do not rule out the existence of a common approach to economic growth and social progress. This approach consists of policies and institutions that govern trade and finance, enterprise and innovation, and labor and government that have common elements. Together, these elements define an economic and social model distinctly European (chapter 1).

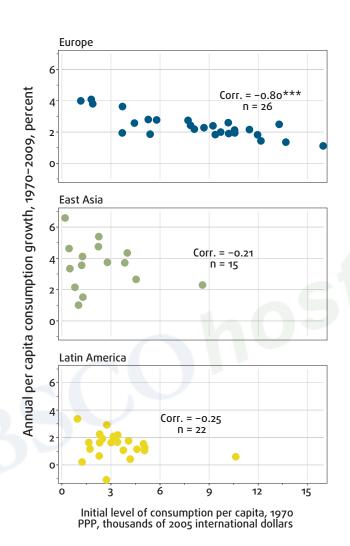
These elements have been associated with Europe's biggest successes since World War II: unprecedented regional integration, global economic power, and the attainment of the highest quality of life in human history.

 Trade, finance, and unprecedented regional integration. Europe's rich and poorer economies are more integrated through trade in goods and services than in any other part of the world, resulting in quicker convergence in incomes and living standards. Private capital in all its forms—foreign direct investment (FDI), financial FDI, and portfolio funds—has flowed from richer to poorer countries, and from low- to high-growth economies. Trade and finance -facilitated by the single market instituted by the European Union and its forebears—have fueled convergence in incomes and living standards.

Figure 1: In Europe, a rapid convergence in living standards—not much elsewhere

(annual growth of consumption per capita between 1970 and 2009, by level of consumption in 1970)

*** Statistically significant at 1 percent. Note: n = number of countries. Source: World Bank staff calculations, based on Penn World Table 7.0 (Heston, Summers, and Aten 2011); see chapter 1.



- Enterprise, innovation, and global economic influence. Private enterprises are held accountable for profits by shareholders, but are also more socially and environmentally responsible than companies in most other parts of the world. Research and development and tertiary education, recognized around the globe for their economic spillovers, are seen as a responsibility not just of firms but also the state. Enterprise and innovation—aided by deep and comprehensive regional economic integration—enable Europe to account for about a third of world gross domestic product (GDP) with less than one-tenth of its population.
- Labor, government, and high living standards. Workers in Europe
 are accorded strong protection against abuse by employers, and have
 unprecedented income security after job loss and in old age. European
 governments are the most decentralized and representative of local interests,





and Europe has developed the most effective institutions for regional coordination in human history. Europe's model of labor and government facilitated by the growing consensus for continental cohesion and made affordable by its economic heft—has made the European lifestyle admired and envied around the world.

What has Europe accomplished that other parts of the world could not? Which aspects of the model are no longer sustainable, either because of unanticipated changes in Europe and elsewhere or because some European countries have transformed themselves too fast? Which changes are needed now, and which can wait? These are the questions that this report asks.

The short answers: Europe has achieved economic growth and convergence that is unprecedented (table 1 and spotlight one). Most countries in Europe are doing well in trade and finance, many in enterprise and innovation, but far fewer are doing well in labor and government. So Europe needs many changes to make its governments and labor markets work better, fewer to foster innovation and productivity growth in enterprises, and fewer still to reform finance and trade. These deficiencies are rooted in how some activities are organized—and they will need to be reorganized. Stalled productivity, declining populations, and growing fiscal imbalances have made some changes urgent.

But in addressing these shortcomings, Europeans should not forget the singular successes of their growth model. By fostering a regional economic integration unique in both depth and scope, Europe has become a "convergence machine." By engineering entrepreneurial dynamism in the countries that balanced market forces and social responsibility, it has made "brand Europe" globally recognized and valued. And by allowing a balance between life and work, it has made Europe the world's "lifestyle superpower." To continue the progress of the last five decades, Europeans now have to do three progressively tougher tasks: restart the convergence machine, rebuild Europe's global brand, and recalibrate the balance between work and leisure to make their lifestyles affordable.

Table 1: Relentless growth in the United States, revival in Asia, and a postwar miracle in Europe

(average annual compound growth rates, GDP per capita, 1820-2008, US\$ 1990 Geary-Khamis PPP estimates)

Year	Western Europe	Southern Europe	Eastern Europe	Former Soviet Union	United States	Japan	East Asia	Latin America
1820-1870	1.0	0.6	0.6	0.6	1.3	0.2	-0.1	0.0
1870-1913	1.3	1.0	1.4	1.0	1.8	1.4	0.8	1.8
1913-1950	8.0	0.4	0.6	1.7	1.6	0.9	-0.2	1.4
1950-1973	3.8	4.5	3.6	3.2	2.3	7.7	2.3	2.5
1973-1994	1.7	1.9	-0.2	-1.6	1.7	2.5	0.3	0.9
1994-2008	1.6	2.7	4.0	4.2	1.7	1.0	3.9	1.6

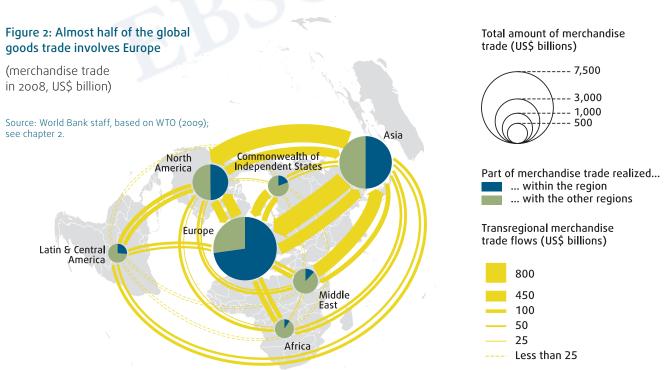
Note: Regional aggregates are population-weighted; see spotlight one for details. Source: Maddison 1996; Conference Board 2011.

The convergence machine

An increasingly vigorous flow of goods, services, and finance over the last five decades has fueled European growth. Europe's economies are the most open in the world. Before the global crisis of 2008–09, half of the world's approximately \$15 trillion trade in goods involved Europe (figure 2). Two-thirds of it was among the 45 countries discussed in this report. Financial flows have been equally vigorous. In 2007, for example, annual FDI in Europe exceeded \$1 trillion. Big and growing trade and financial links facilitated by the single market form the core of the European convergence machine.

Increasingly sophisticated trade

During the last two decades, the new member states of the European Union have done especially well at taking advantage of the opportunities offered to them, integrating westward by trading goods and modern business services. During the last decade, the candidate countries of Southeastern Europe have been doing it through trade in merchandise and more traditional services such as travel and transport. This has helped enterprises in Western Europe too. With FDI and offshoring, enterprises in Western Europe such as Fiat, Renault, and Volkswagen have made themselves and eastern enterprises like Yugo, Dacia, and Škoda more efficient and sophisticated. Simpler tasks are being given to countries outside Europe; advanced Europe is getting emerging Europe to do more difficult things, and both regions are benefiting (chapter 2).









The goods trade between advanced and emerging Europe has grown rapidly since the mid-1990s—when the European Union signed its first association agreements with Hungary and Poland—and this does not appear to be injuring trade with other parts of the world. Europe does a brisk goods trade with North America, Asia, the former Soviet Union, and Africa (figure 2). But trade within the region has grown much more sophisticated over the last decade, aiding quick convergence in productive capacity and living standards. It is helping to create a bigger and stronger economic union between the European Free

Factory Europe may not be expanding as fast as Factory Asia, but it has become smarter. And it could expand a lot too. With economic recovery and better trade facilities—especially information and communications infrastructure in the European Union's new member states and the candidate countries—regional goods trade could double over the next decade.

Trade Association (EFTA), the EU15, the new member states, the EU candidate

countries, and even the eastern partnership economies.

The trade in modern services in Europe is increasing too, but not fast enough for many Europeans. The benchmark for merchandise trade is East Asia, a developing region, but the European Union gauges the Single Market for Services against the United States, a developed country. Trading services is not easy: it often requires movement of people across borders, ease in establishing a local presence, and harmonious home-host regulations. Given all this, Europe's trade in services does not seem stunted (figure 3). But progress is mixed: travel and financial services have done well but transport and other business services—especially those involving new technologies and the Internet -have not. With reforms that make adopting newer technologies easier, better regulations, and greater mobility of workers, Europe's trade in services could triple in size over the next decade. More important, productivity in the general services sector—which is about 70 percent of GDP in Europe—would increase.

The opportunity that Europe might really be missing involves regional trade in agriculture. The European Union pays for its agricultural trade policies not just with the roughly €50 billion a year the European Commission spends on agriculture and rural development and their large indirect efficiency costs, but also through missed opportunities for closer economic integration with eastern partnership countries. In Georgia and Ukraine, a third of all workers still depend on agriculture for a living. Allowing better access to European farm markets would aid their development, win friends, and influence policies in the countries of the eastern partnership.

Despite these weaknesses, the overall assessment of European trade is positive. In 2009, Europe's merchandise trade was worth about \$4.5 trillion, more than East Asia's and North America's combined. Its trade in services was worth \$2.25 trillion, more than that of the rest of the world combined. Trade is the mainstay of the European economic model and its most attractive attribute.

Finance that flows downhill

Financial integration is the second part of the convergence machine. Finance has served Europe well. This may come as a surprise to those who blame the current crisis in the eurozone on banks that lent money to spendthrift

Figure 3: More trade in services in Europe, but apparently in more traditional activities

(services exports in the European Union, United States, and Japan, 2008)

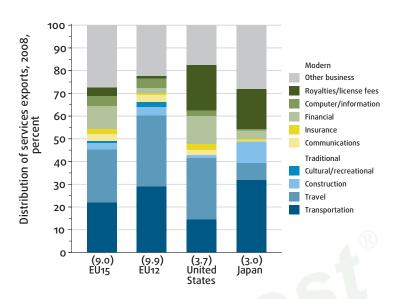
Note: The numbers in parentheses refer to the sum of traditional and modern service exports as a percentage of GDP.

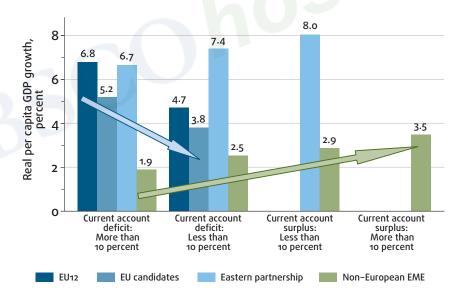
Source: World Bank staff calculations, based on IMF BOPS; see chapter 2.



(current account deficits and per capita growth, 1997-08, by groups of countries, percent)

Note: Average growth rates calculated using 3 four-year periods in 1997–2008. Source: World Bank staff calculations, based on IMF WEO; see chapter 3.





governments. But European finance has a desirable attribute: capital of all types flows from richer to poorer countries, from low- to high-growth countries. Financial FDI—big investments by Austrian, French, Italian, and Swedish banks in Central and Eastern Europe—is a unique feature of Europe. In the east, it has helped (chapter 3).

Figure 4 shows the relationship between economic growth and current account deficits in the new member states of the European Union, its candidates, the eastern partnership countries, and other emerging economies. An upward sloping arrow means that countries that ran smaller deficits or larger external account surpluses grew faster. In other words, a country grew faster if it lent







rather than borrowed abroad. And for emerging economies outside Europe, this is indeed what we see: capital flows from poorer, high-growth countries to richer, low-growth countries (green arrow). Call this the "China syndrome."

In Europe, capital behaves the way it should: it flows from richer to poorer economies, and countries receiving more capital grow faster. The laws of economics have held in Europe. They hold more firmly the more institutionally integrated the economies have become with Western Europe—by membership in the European Union or by signaling the intention to join. Belarus and Ukraine, for example, have done neither, and they look a lot like emerging market economies outside Europe, growing faster when they have external account surpluses (capital outflows) or smaller current account deficits.

In 2008, when the financial crisis hit, people who were familiar with earlier crises in Asia and Latin America expected a massive pullout by western banks. It did not happen: foreign banks stayed, renewing 90 percent of the loans they had made, a much higher proportion than in previous crises. Of course, during the preceding boom some governments, enterprises, banks, and households abused the opportunities provided by this model of financial integration. And today, as western banks face pressures to offset losses in Southern Europe, they may have to sell their profitable businesses in Eastern Europe. But the benefits have been greater than the excesses, and some reforms can make the flows more stable and their benefits even greater: better management of public finance during booms in both advanced and emerging Europe, and more adept regulatory structures to crisis-proof private finance. To grow at high and steady rates, economies in emerging Europe have not had to "become Asian." Nor should they have to now.

Restarting the convergence machine

In the early 2000s, an important debate took place. For two decades, economists had been puzzled by the finding that a country was able to invest only as much as what it could itself save. In theory, capital flows should allow savers in wealthier, or low-growth, countries to finance investment in poorer, or high-growth, economies. They would get a higher return on their money, and these financial flows would allow the people in developing nations to save less and consume more, and invest more and grow faster. Unfortunately, it did not seem to happen; instead, there was a strong correlation between saving and investment across countries (Feldstein and Horioka 1980). But in the European Union between 1992 and 2001, especially the eurozone, research showed that something had changed. Greece and Portugal had run large current account deficits financed by foreign capital inflows; their savings had fallen, investment had increased, and their economies had grown (Blanchard and Giavazzi 2002). The question was whether policymakers—national governments, the European Union, and the European Central Bank—should welcome these growing imbalances, or worry about them.

With the benefit of hindsight the answer is, of course, both. The capital inflows were the result of trade and financial integration, and they were supposed to make Greece and Portugal more productive and richer economies. Until about 2001, they did, and their living standards converged to those of more advanced

European economies. But since 2002, labor productivity in Europe's southern countries has been falling. The sheer volume of flows meant that inflows replaced domestic saving. Increasingly, though, they did not fund productive investment. Obviously, the borrowed money had not always been used well. It had flowed in on the belief that Greek and Portuguese debts would be serviced or repaid. By 2009, it was clear that this was going to be difficult.

In the new member states, the same story was being played out, but with many more happy endings than sad. In countries such as the Czech Republic and Poland, foreign savings flowed into productive uses, and both Western European savers and Eastern European investors benefited. In some others, ever larger flows began to finance consumption, sometimes by the government but more often by households. In these countries, economic growth went into reverse during the global financial crisis.

Restarting the convergence machine will not be difficult. The Single Market for Services is becoming more efficient, and national governments can accelerate the process by fully implementing the European Union's Services Directive. For many services, measures to increase mobility of labor among countries will help greatly. For other more modern services that can be sold digitally, harmonious regulations may be much of what is needed. New member states of the European Union and the candidate countries in Southeastern Europe will have to continue easing the bottlenecks in transport and communication infrastructure and modern services, so that trade in manufactures can facilitate the production networks that have been growing in size and sophistication. The European Union can also help millions of people in the eastern partnership countries—whose combined GDP is less than \$0.5 trillion—by giving better access to its \$1 trillion market for food and other farm products.

A lot of this is happening. It is finance, the fuel for the machine, which needs more attention. Europe's convergence machine needs a better regulator of financial flows. Finance flows in the right direction in Europe—proof positive of the soundness of the system. But the flows are erratic, flooding Europe's less advanced economies when finance is plentiful, and starving them of finance when savers and investors in advanced countries become skittish. Financial flows could be made steadier through conservative fiscal policies and prudential regulations, so that they do not suddenly stop when growth slows. Canada, the Czech Republic, Croatia, and Poland showed what can be done during good times, and Sweden and the Republic of Korea have shown ways to quickly get firms and households out from under a debt overhang when boom-time finances fuel excesses and cause busts (Iwulska 2011).

"Europe"—a global brand

As convergence has slowed and even gone into reverse in parts of Europe, the entire region is getting a bad press. Europe's best days are behind it, it is now said. High unemployment among young people, stagnant worker productivity, unsustainable public finances, and archaic social protection and innovation systems that are unsuited for a globalized economy are all presented as symptoms of economic decay. But the heart of an economy is neither labor nor





government—it is enterprise. Since the mid-1990s, during a period when Asia had a huge financial crisis and bigger recovery, and the United States had a spectacular technology boom and a massive financial crisis, European enterprise has quietly flourished.

This is no mean achievement, because Europe expects much from its enterprises. Their shareholders expect them to add value and turn a profit, workers expect them to create jobs, and governments want them to bring in export earnings. Remarkably, over the last decade and a half, European enterprises have delivered all three (figure 5). Between 1995 and 2009, job growth in advanced Europe outstripped that in the United States. The new member states of the European Union and the candidate countries engineered productivity increases that outstripped those in East Asia and Latin America. Exports of goods and services in advanced and emerging Europe rose faster than output, and exceeded the growth rates even of the heralded BRIC economies (chapter 4). German and Swedish manufactures, produce from France and the Netherlands, and British and Italian banks have global reach and reputation; Czech engineering, Estonian information technology, and Turkish construction companies are quickly acquiring them. These are not the signs of a region in decay.

With Asian enterprises becoming more active globally, the next few decades might well require European enterprises to make changes in how and where they do business. For now, the numbers show that in aggregate, European enterprise has been a reliable component of the economic model.

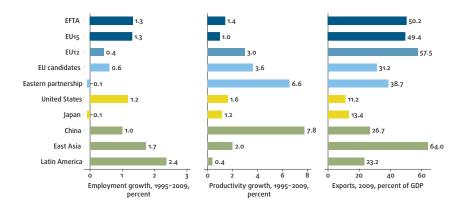
Southern enterprise falters

But not all is well. Employment growth in the EU12 could have been quicker, productivity growth in the EU15 should have been faster, and EU candidate and eastern partnership countries should raise exports to levels seen in the rest of Europe (see top five bars in figure 5). Perhaps most worrisome are the productivity patterns since 2002, which show that parts of Europe have been faltering (figure 6). Northern countries such as Finland, Sweden, and the United Kingdom—and later the Baltic economies—have done well, and continental economies such as Austria, France, Luxembourg, and Germany—and later the Czech Republic, Poland, and others—have been doing well too. But countries in Southern Europe—Greece, Italy, Portugal, and Spain—have not. From 2002 to 2008, they created jobs, but mainly in cyclical activities like construction or in less productive enterprises (like micro and family firms). And the productivity of their workers has been falling.

A premature adoption of the euro by southern economies is sometimes blamed for this reversal of fortune. Others say that letting the formerly communist countries into the European Union so soon did not give the south enough time to become competitive. But perhaps the most likely explanation is that of all the economies in Europe, the entrepreneurial structures of Greece, Italy, Portugal, and Spain were least suited for the wider European economy. For one thing, a sizable part of net output in southern economies is generated in small firms—almost a third of it in tiny enterprises (with fewer than 10 workers; figure 7).

Figure 5: European enterprises have delivered jobs, productivity, and exports

(performance of European subregions and benchmark countries, 1995–2009)



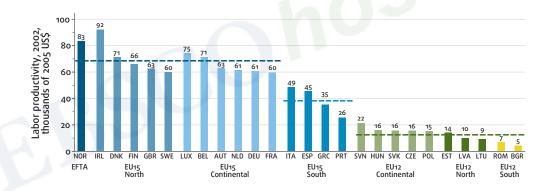
Note: Growth rates in employment and productivity are compound annual growth rates. Average values by group are shown. China and Japan are also included in the calculation of East Asia's regional average.

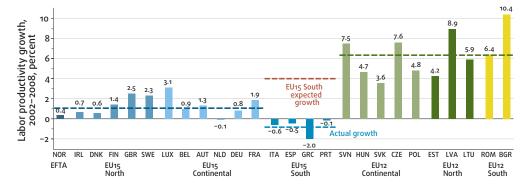
Source: World Bank staff calculations, based on WDI and ILO (2010); see chapter 4.

Figure 6: Much of Europe is becoming more productive, but the south has fallen behind

(labor productivity levels in 2002, thousands of 2005 US\$)

(labor productivity growth, 2002–08, annual percentage increase)



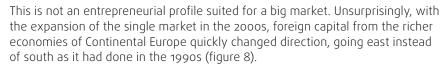


Note: For Belgium, Greece, and Norway, productivity levels refer to 2003 (top panel). In the bottom panel, the period considered varies: Belgium and Norway (2003–08); Greece (2003–07); and the Czech Republic, France, Latvia, Romania, and the United Kingdom (2002–07). The three lines in each panel show average values for countries covered by each line. Expected growth for EU15 South is obtained by computing gaps in productivity levels between EU15 South and each of the other two groups and then applying these shares to the difference in growth between the first (that is, EFTA, EU15 North, and EU15 Continental) and the third (EU12) groups.

Source: World Bank staff calculations, based on Eurostat; see chapter 4.







Did the south need more time to adjust, or did it squander opportunities? The latter seems more plausible. Ireland has shown that EU institutions and resources can be translated quickly into competitiveness. The Baltic economies are now doing the same. The chief culprits for the south's poor performance were high taxes and too many regulations, often poorly administered. While these mattered less when its eastern neighbors were communist and China and India suffered the least business-friendly systems in the world, they are now crippling southern enterprise (figure 9).

But there are reasons to be optimistic. The sovereign debt crisis has led to a resumption of regulatory reform in these countries, and the experience of countries such as Latvia and Lithuania shows that the necessary improvements can be done over years, not decades. And they need to be done quickly. From 2003 to 2006, Europeans who felt that globalization was an opportunity for their enterprises fell from 56 to 37 percent (Morley and Ward 2008). By 2006, the share of people who felt it was a threat to European enterprises and employment was almost half. The Danes, Swedes, Dutch, and Estonians were the most positively disposed to globalization; the French, Greeks, Belgians, and Cypriots the least. It is not a coincidence that the countries where people are wary of competition have the worst business climate in Europe.

Europe would get even more from its enterprises if it made doing business easier. Southern Europe must start doing this now, and Central and Eastern Europe should continue improving the investment climate. Otherwise, enterprises will remain small and unproductive—increasingly unable to attract foreign investors, incapable of taking advantage of a pan-European market that will only get bigger and more competitive, and progressively uncompetitive in global markets, where they have to contend with enterprises from East Asia and North America. A better business climate will help to stem the growth of imbalances within Europe, restart the convergence machine, and make European enterprises globally competitive. Countries such as Denmark, Germany, Finland, Ireland, Sweden, and the United Kingdom show how it can be done (Iwulska 2011).

The north innovates

But making it easier to do business will not be enough on its own. When productivity gaps were growing within Europe, the gap between the advanced economies of Europe and the United States started to widen after almost disappearing in the mid-1990s. Indeed, the 2000s were a decade of declining productivity in the EU15 relative to both the United States and Japan, the world's next two largest economies after the European Union during that time (figure 10). Between 1995 and 2009, labor productivity in the United States grew at 1.6 percent annually, in Japan at 1.2 percent, and in the EU15 at just 1 percent (figure 5).

(contribution of enter

(contributions to value added by size of enterprises, 2009)

Figure 7: Smaller firms contribute

half of value added in the EU15

South, but just a third elsewhere

Note: The numbers in parentheses are the total value added expressed in billions of constant 2005 U.S. dollars. The EU15 comprises Denmark, Finland, Sweden, and the United Kingdom (North); Austria, Belgium, France, Germany, and the Netherlands (Continental); and Greece, Italy, Portugal, and Spain (South). The EU12 comprises Estonia, Latvia, and Lithuania (North); the Czech Republic, Hungary, Poland, the Slovak Republic, and Slovenia (Continental); and Bulgaria and Romania (South).

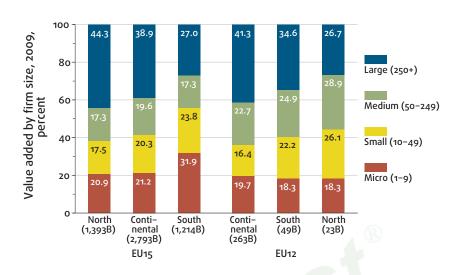
Source: World Bank staff calculations, based on Eurostat; see chapter 4.

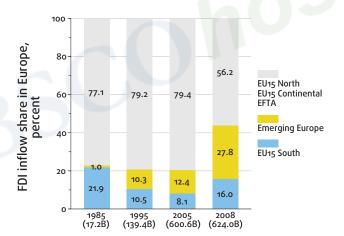
Figure 8: Western European investors have been looking east, not south

(foreign direct investment inflows in Europe, percent, 1985, 1995, 2005, and 2008)

Note: The numbers in parentheses are the amount of inflows expressed in billions of U.S. dollars

Source: World Bank staff calculations, based on UNCTAD (2010); see chapter 4.

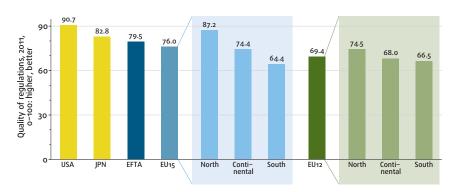




Reassuringly, productivity in Northern Europe grew at 1.7 percent per year during the same period. What has the north done to encourage enterprise and innovation? Much of its success has come from creating a good climate for doing business. All the northern economies are in the top 15 countries of 183 in the World Bank's Doing Business rankings; at 14th, Sweden is the lowest-ranked among them. They have given their enterprises considerable economic freedom. Their governments are doing a lot more. They have speeded up innovation by downloading the "killer applications" that have made the United States the global leader in technology: better incentives for enterprise-sponsored research and development (R&D), public funding mechanisms and intellectual property regimes to foster profitable relations between universities and firms, and a steady supply of workers with tertiary education. Tellingly, Europe's innovation leaders perform especially well in areas where Europe as a whole lags the United States the most. These features make them global







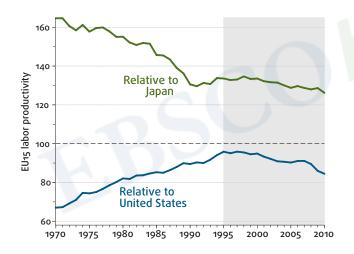


Figure 9: Southern and Eastern Europe must make it easier to do business

(principal components index of the ease of doing business in 2011, scaled from o [poor] to 100 [excellent])

Note: Averages are computed using principal component analysis. EFTA here comprises Iceland, Norway, and Switzerland. The EU15 comprises Denmark, Finland, Ireland, Sweden, and the United Kingdom (North); Austria, Belgium, France, Germany, Luxembourg, and the Netherlands (Continental); and Greece, Italy, Portugal, and Spain (South). The EU12 comprises Estonia, Latvia, and Lithuania (North); the Czech Republic, Hungary, Poland, the Slovak Republic, and Slovenia (Continental); and Bulgaria, Cyprus, and Romania (South).

Source: World Bank staff calculations, based on Doing Business; see chapter 4.

Figure 10: Productivity growth in Europe's larger economies has slowed down since the mid-1990s

(EU15 labor productivity, indexed to the United States and Japan)

Source: World Bank staff calculations, based on the OECD Productivity database; see chapter 5.

leaders; combining them with generous government spending on R&D and public education systems makes their innovation systems distinctively European (chapter 5).

For Europe's larger continental economies that have reached or exceeded U.S. standards in physical, financial, and human capital, R&D and other innovation deficits are likely to be growth inhibitors. In dynamic Eastern Europe, countries need not invest much more in R&D and the production of knowledge. But they must still innovate through osmosis: they have considerable scope for the quick adoption of existing technologies, using FDI and trade links as conduits. The south is becoming slower in importing new technologies: FDI inflows and outflows have been falling since the economies in emerging Europe integrated with Continental and Northern Europe. For these increasingly service-oriented economies, reform of domestic regulations—not more R&D spending—may be the best way to speed up innovation.

What has been more perplexing is Europe's generally poor performance in the most technology-intensive sectors—the Internet, biotechnology, computer software, health care equipment, and semiconductors. Put another way, Korea; Taiwan, China; and the United States have been doing well in sectors that are huge now but barely existed in 1975. Europe has been doing better in the more established sectors, especially industrial machinery, electrical equipment, telecommunications, aerospace, automobiles, and personal goods. The United States has young firms like Amazon, Amgen, Apple, Google, Intel, and Microsoft; Europe has the older like Airbus, Mercedes, Nokia, and Volkswagen.

Europe's young leading innovators (called "Yollies" for short) are as R&Dintensive as those in the United States. Europe just has a lot fewer Yollies. As a result, while more than a third of U.S. R&D spending is by Yollies, it is less than one-fifteenth in Europe. The United States focuses its R&D efforts on innovation-based growth sectors (figure 11). Europe specializes in sectors with medium R&D intensity. Japan is showing other East Asian countries how productivity growth can be maintained in established industries such as automobiles and electronics, and Germany may be doing the same. With the size and diversity of the European economy, productivity growth will likely come both from doing what Japan has done and adopting parts of the American innovation system. But to do either, the common market will have to become more of a single economy.

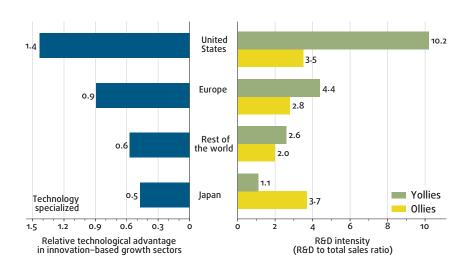
All European countries should have the friendly business climate that Denmark, Ireland, and Norway have. It is not a coincidence that the only large European economies that rival the United States and Japan in innovation are Germany and the United Kingdom, which were both ranked in the top 20 countries for ease of doing business in 2011. Many more European countries should have the universities like those in the United States and Japan, where more than one

Figure 11: The United States specializes in younger, more **R&D-intensive products**

(relative technological advantage and R&D efforts by young and old innovation leaders in the United States, Europe, and the rest of the world)

Note: R&D intensity is measured as the ratio of R&D spending to total sales, for firms established after 1975 (young leading innovators or "Yollies") or before 1975 ("Ollies"). The relative technological advantage is calculated as the share of each region or country (say, Europe) in the R&D of a particular sector (say, the Internet) relative to the share of Europe in world R&D; values greater than one indicate the region is technologyspecialized in the sector.

Source: Bruegel and World Bank staff calculations, based on the European Commission's Institute for Prospective Technological Studies R&D Scoreboard; see chapter 5.









out of two people ages 30-34 have completed college; in Europe, only Ireland, Denmark, Norway, Luxembourg, and Finland exceed 45 percent. More countries will have to improve their business-science links to rival those in the United States and Japan; currently, only Switzerland and Scandinavia do as well.

Burnishing the brand

Perhaps the simplest and most reliable way to assess the innovation performance of a country is to see how much more productive its enterprises become every year—that is, how much better they are in buying, producing, and selling. During the last decade, two things have happened that should worry Europeans. The first is that since the mid-1990s, labor productivity in Europe's advanced economies has been falling relative to that of the United States (and Japan). The second is that productivity in Southern Europe has been falling compared with that in both the advanced countries in Western Europe and the less well-off countries in emerging Europe. How can these gaps be closed?

It depends on the gap. For reducing that between the south and the north, the most important steps involve improving business regulations. Countries in the EU12 South—notably Bulgaria—and Georgia have been showing that this can be done even in the poorest parts of Europe. For closing the transatlantic productivity gap, more is necessary. Leading European economies such as Switzerland, Sweden, Finland, Denmark, and Germany are showing what works. Following their example would mean giving up the fixation on public R&D spending targets, and focusing instead on improving competition among enterprises, increasing the private funding of universities, changing the way research is funded so that business-university linkages become stronger, and making the single market work for services so that Europe's entrepreneurs view the entire continent as their domestic economy.

There are reasons to be optimistic. During the last two decades, countries in the EFTA-Iceland, Norway, and Switzerland principally-have actually done better in improving productivity than the United States. Northern parts of the EU15—especially Denmark, Finland, Ireland, and Sweden—have also been doing well. The trouble is that their economies add up to less than \$1.5 trillion in purchasing power terms, roughly the GDP of Spain or Texas and just a tenth of the European Union's economy (see the Selected Indicators tables). If the rest of Europe could benefit from the dynamism of northern economies—by learning from them or leaning on them-Europe's innovation goals might quickly be reached.

Chapters 4 and 5 make it clear that preserving Europe's global brand will be more difficult than restarting convergence. To stay competitive on world markets, Europe will have to make trade even more vigorous and finance more durable so that the region eventually becomes a single economy. To help redress the continent's growing productivity gaps, governments in Southern Europe will have to quickly improve the climate for doing business. The more dynamic countries in Eastern Europe will have to do all this as well as invest in infrastructure. To close the growing transatlantic productivity divide, continental countries must give their enterprises more economic freedom. Enterprises in the northern and EFTA economies—already among the world's most innovative—will

need fuller access to markets in the rest of Europe. Europe will have to become the top destination for those seeking higher education and the opportunity to become entrepreneurs. Only then can European enterprises stay globally competitive, and Europe become the place of choice of entrepreneurs from around the world.

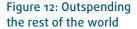
The lifestyle superpower

In 2008, Europe was already the place of choice for tourists: of the busiest 20 international tourist destinations, more than half were in Europe. The United States had the might and China the momentum, but Europeans had the highest standard of living. Millions of people from around the world visited Europe to see and experience it firsthand. In the 1990s, Japan's Prime Minister Kiichi Miyazawa had promised he would make his country the "lifestyle superpower." With average incomes still a quarter short of those in the United States, Europe had become one.

Superpowers tend to spend a lot to protect their interests and project influence. To remain the political superpower, the United States spends almost as much on defense as the next 15 countries do together. To keep its status as the lifestyle superpower, Europe spends more on social protection than the rest of the world combined (figure 12).

The decline of work

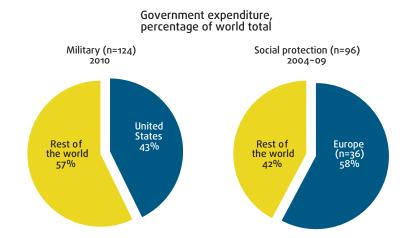
The hallmark of the European economic model is perhaps the balance between work and life. With prosperity, Americans buy more goods and services, Europeans more leisure. In the 1950s, Western Europeans worked the equivalent of almost a month more than Americans. By the 1970s, they worked about the same amount. Today, Americans work a month a year more than Dutch, French, Germans, and Swedes, and work notably longer than the less well-off Greeks, Hungarians, Poles, and Spaniards (chapter 6).



(general government spending on defense [United States] and social protection [Europe], 2004-09, share of total world spending)

Note: For social protection spending, due to the data availability, averages over 2004-09 by country are used. Data cover general government but, if unavailable, refer to central government only. n = the number of countries included in the calculations.

Source: World Bank staff calculations, based on Stockholm International Peace Research Institute (2011); IMF GFS; WDI; World Bank ECA Social Protection Database; and Weigand and Grosh (2008).







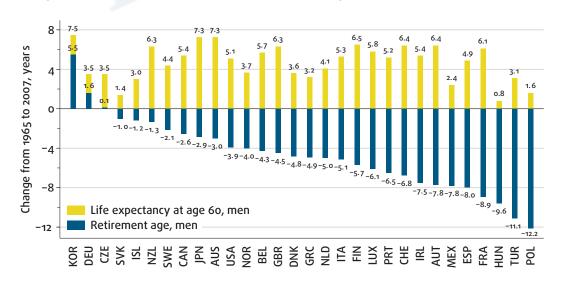
Europeans have also cut the years they work during their (ever-lengthening) lives. Today, men in France, Hungary, Poland, and Turkey effectively retire more than eight years earlier than in the mid-1960s. The average European can also expect to live four years longer. By 2007, Frenchmen expected to draw pensions for 15 more years than in 1965, and Austrian, Polish, Spanish, Swiss, and Turkish men for more than a dozen. In Organisation for Economic Co-operation and Development countries, only Korean, German, and Czech men work more years today than they did 50 years ago (figure 13).

American, Australian, and Canadian men also retire about four years earlier than they used to. But their countries have more favorable demographics than the typical European country (figure 14). On current immigration and work participation trends, the 45 countries covered by this report will lose about 50 million workers over the next five decades, and have a workforce of about 275 million by 2060. In the 2030s alone, the labor force will fall by 15 million people. The decline will be most severe for the European Union (countries such as France, which have high fertility rates today, do better), but candidate and neighborhood countries will also lose workers. The exception is Turkey, where the labor force is projected to increase until 2060.

Only with radical changes can Europe counteract the shrinking of its labor force. If participation rates in all countries were to converge with those seen in Northern Europe, or if the retirement age were to increase by 10 years across the board, the European labor force would increase marginally over the next 50 years. If female labor force participation converged with men's, the labor force

Figure 13: Europe's pension systems have to support people for many more years

(changes in life expectancy at 60 and effective retirement age, 1965–2007)



Source: OECD (2011); updated data from OECD (2006).

Figure 14: Europe's labor force will shrink, while North America's will grow by a quarter

(projected cumulative change in working-age population, 2010–50, percent)

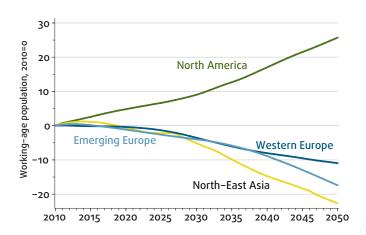
Note: North America is Canada and the United States and North-East Asia includes China; Hong Kong SAR, China; Japan; Macao SAR, China; the Republic of Korea; and Taiwan, China

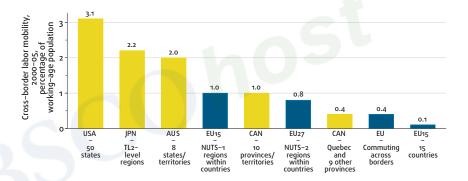
Source: U.S. Census Bureau, International Data Base; see chapter 6.

Figure 15: Europeans are less mobile, even within their own countries

(labor mobility, share of working age population that has moved, 2000-05)

Source: Bonin and others (2008); OECD (2005 and 2007); see chapter 6.





would still decrease by 5 percent. But none of these changes would completely offset the loss of young workers. For that, Europe will need to integrate Turks into the European labor market and attract talented young workers from around the world. In one plausible scenario, Turkey could contribute 40 percent of the gains in the European labor force, and almost all of the increase in young workers.

Fixing the European labor market will require a lot: increasing the competition for jobs, improving labor mobility within Europe, fixing how work and welfare interact, and rethinking immigration policies. These changes will not happen without a new social consensus, which has yet to be built.

Perhaps the best way to start is to accelerate internal labor mobility in Europe. Mobility in the European Union is the lowest in the developed world (figure 15). There are natural barriers to greater labor mobility associated with language and cultural differences, but there are also policy-induced obstacles. In most of the older EU member states, there are restrictions on the movement of workers from the new member states. Housing markets in many European countries can be inefficient and make moving expensive: the transaction costs of buying or selling a house can be high. Despite measures to ensure the portability of social benefits across the European Union, including pensions and unemployment





insurance, in practice it is limited because of cumbersome rules. Generous unemployment benefits discourage workers from seeking jobs. Labor market signals can be muted by collective bargaining agreements that limit territorial wage differentiation. To make the single market work better, making labor more mobile should be a priority. For the countries that share the common currency, it is a prerequisite (box 1).

Then, Europe has to make changes in how work is regulated and social security provided. Many countries in Western Europe had started to reverse the decline in work participation during the late 1990s and early 2000s; many in Central, Eastern, and Southern Europe now must do the same. The main attribute of the European economic model that needs to be reassessed is employment protection legislation, which is lowering participation and reducing employment in many countries. In countries such as Spain, it may be responsible for youth unemployment rates as high as 40 percent. Paradoxically, Europe has impending shortages of young workers and high joblessness among its youth.

Denmark and Germany have shown how this can be remedied (Iwulska 2011). Other countries like Croatia, Moldova, Poland, Romania, and Turkey may have to learn quickly and carefully implement the lessons. The countries in emerging Europe will also have to decide—based on their cultural and political antecedents—whether to move toward greater job security and join countries such as Belgium and France, or toward greater flexibility and become more like the North Americans and East Asians. To have both as in Denmark, they will have to consider the greater fiscal costs of "flexicurity." At the moment, most countries have neither.

While all this is being done, Europe's policymakers could get people to appreciate the need for a new approach to immigration. Europe needs an immigration policy that is more driven by economic need. Today the debate is about how to best manage migration from North Africa. Tomorrow's debate should be about the policies and practices that will make Europe a global magnet for talent. Countries like Sweden and the United Kingdom have been doing this, but not quite as effectively as Canada and the United States (Iwulska 2011).

The precipitate promise of social protection

Europe will have to make big changes in how it organizes labor and government. The reasons are becoming ever more obvious: the labor force is shrinking, societies are aging, social security is already a large part of government spending, and fiscal deficits and public debt are often already onerous.

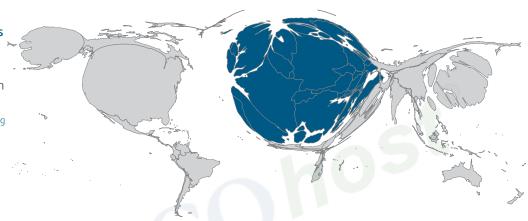
In dealing with government spending, deficits, and debt, it is sensible to start by asking whether European governments are too big; that is, whether they spend too much. They are obviously bigger than their peers. In the EU15, governments spent 50 percent of GDP in 2009; in much of the rest of Europe, this share was about 45 percent—versus less than 40 percent in the United States and Japan, 33 percent in Latin America, and about 25 percent in emerging East Asia. A map of the world resized to reflect government spending instead of land area shows how Europe might look to outsiders (figure 16).

Governments in Europe spend between 7 and 10 percent of GDP more than their peers elsewhere—that is, countries at similar levels of per capita income. The difference is mostly the spending on social protection. For example, Western European governments spend about 10 percent of GDP more than the United States, Canada, Australia, and Japan. The difference in social protection spending is 9 percent of GDP (figure 17).

Figure 16: Governments in Europe are big

(the world resized by government spending in dollars, 2009)

Source: World Bank staff, using IMF WEO.



There can be good reasons for having bigger governments. If governments are good at supplying essential social services, and if European society wants to redistribute more to protect the welfare of the elderly, infirm, or unfortunate, they should provide these amenities. If European populations are older and social security systems have to be bigger, that may be another good reason for high-spending governments. European societies have been more redistributive and to good effect—look at the impressive declines in poverty in Western Europe since World War II and in Eastern Europe since the end of the Cold War.

But social services, social welfare, and social security have to be financed by taxes, and tax rates in Europe are the highest in the world. For example, the tax wedge in Korea—the amount that Korean employers pay besides wages when hiring workers—is about a third of what Belgian enterprises pay and half of the taxes paid by businesses in Greece and Turkey. The question that such numbers provoke: is big government a drag on growth in Europe? It appears it is. Over the last 15 years, a 10 percentage point increase in initial government spending in Europe has lowered annual growth by 0.6–0.9 percentage points. Countries with government spending-to-GDP ratios above 40 percent grow by 2 percentage points of GDP less than those with lower ratios (chapter 7).

Of course, size is not the only feature that matters. What government does and how it finances its activities is as important. European governments regulate the largest economic area in the world; encourage a vigorous exchange of goods, services, and capital; promote voice and accountability; provide or enable the provision of public goods; and redistribute wealth. Bigger governments are often better at doing these things, especially when social trust ensures that





everybody plays by the same rules. As countries like Sweden show, such big governments can go together with thriving, dynamic economies.

But it is not easy being like Sweden. What does it take? Make it so easy to register property, trade across borders, and pay taxes that the World Bank ranks the country one of the top 15 for doing business. Create the conditions that get four out of every five people of working age into jobs, and get almost everybody who works to pay taxes. Have an efficient government that provides high-quality social services, so taxpayers get their money's worth. Institute the pension rules that make it difficult to retire before 65 and impossible until you reach your 60s. Cultivate the social trust that allows both a generous social safety net and a transparency in government so that abuse is minimal. The list is long. If a country can do all this, big government will not hurt growth.

Europe's governments will have to become more efficient, or become smaller. Fortunately, governments that have grown prematurely big have done so for just one reason: social protection. Europe's states are not big spenders on either health or education. The variation among countries stems from a difference in spending on pensions and social assistance. Europe's countries also differ in how they tax these benefits; Northern European countries tax the social security benefits of people with high incomes more than others in Europe do. After taxes are considered, the southern periphery is the biggest social spender in Western Europe. But the reason why Europe spends more than its peers on public pensions is the same in the north, center, and south. This is not because Europe has the oldest population (Japan's is much older) nor because of higher pension benefits (annual subsidies per pensioner are about the same in Greece as in Japan). It spends more because of easier and earlier eligibility for pensions (figure 18).

Fiscal consolidation should be a top priority in Europe during the next decade, and controlling the public expenses related to aging will remain the policy imperative over the next 20 years. Calculations done for this report suggest that Western Europe has to improve its primary balance—adjusted for the business cycle—by about 6 percent of GDP during this decade to reduce public debt to 60 percent of GDP by 2030 (figure 19). Among the countries of Western Europe, the need for consolidating public spending is greatest in the south and lowest in the north. Among Europe's emerging economies, with a lower public debt target of 40 percent of GDP, the adjustment needs are about 5 percent of GDP. They are lowest in the European Union's new member states. Bigger adjustments will be needed in candidate countries and the economies of the eastern partnership, because many of them have not begun seriously reforming their social protection systems—pensions, unemployment insurance, and social assistance.

Public spending related to aging includes the ever-increasing costs of providing health care for the elderly. Without comprehensive reforms to pensions and long-term health care, these costs could add more than 3 percent of GDP to the governments' fiscal imbalance during the next two decades. Governments in Europe that spend more than 10 percent of GDP on such benefits may be risking underinvestment in activities that help economic growth—education, infrastructure, and innovation. Countries such as Serbia and Ukraine that already spend 15 percent or more on social security alone may be jeopardizing the welfare of generations.

Recalibrating the work-life balance

The European model of work provides income security more than any other, and some countries such as Austria, Denmark, Ireland, and Switzerland have adapted it to combine security with flexibility in hiring and firing to foster both efficiency and equity in labor market outcomes. But for much of Europe, the imbalances between work and life need to be mitigated, as do the fiscal imbalances that have emerged as a result of public spending to protect societies from the rougher facets of private enterprise.

Figure 17: Social protection explains the difference in government size between Europe and its peers

(government spending, percentage of GDP, 2007-08)

Note: "Social protection" includes benefits related to sickness and disability, old age, survivors, family and children, unemployment, and housing. Western Europe comprises Denmark, Finland, Iceland, Norway, and Sweden (North); Austria, Belgium, France, Germany, Ireland, Luxembourg, the Netherlands, Switzerland, and the United Kingdom (Center); Greece, Italy, Portugal, and Spain (South). Source: World Bank staff calculations, based on IMF GFS and IMF WEO.

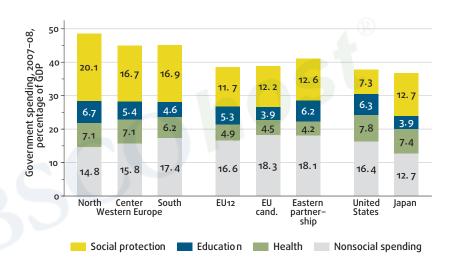
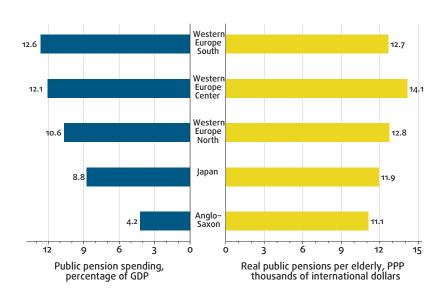


Figure 18: Small differences in annual pensions per beneficiary, big in overall public pension spending

(public pension spending in 2007)

Note: Median values by group are shown. Western Europe comprises Denmark, Finland, Iceland, Norway, and Sweden (North); Austria, Belgium, France, Germany, Ireland, Luxembourg, the Netherlands, Switzerland, and the United Kingdom (Center); Greece, Italy, Portugal, and Spain (South). Anglo-Saxon comprises Australia, Canada, New Zealand, and the United States. Source: World Bank staff calculations, based on Eurostat and the OECD Pensions Statistics; see chapter 7.







Since the mid-1980s, a billion Asian workers have entered the global marketplace. Over the same period, Europeans have been working fewer hours per week, fewer weeks per year, and fewer years over their lifetimes. It is worrisome that their productivity is not increasing as quickly as it should. In the European Union's southern states, for example, productivity during the last decade fell by 1 percent each year, when—given productivity levels relative to those in Continental and Northern Europe—it should have increased by about 4 percent annually. It is also worrisome that in many parts of Europe, taxes bring in less than what governments spend. France and Germany, for example, have not had a fiscal surplus since the 1970s; Greece expected a budget deficit of about 10 percent of GDP in 2011; and Hungary, Serbia, Ukraine, and many others have been struggling to contain budgetary imbalances.

This will have to change. The reform of pensions and disability allowances will have to be the highest priority now, with costs of long-term health care soon becoming a pressing problem. Europe already spends twice as much on social security as Japan and the United States. There are some countries in Europe that are showing how to address these problems. Some such as Sweden are well known; others like Iceland could be studied more (Iwulska 2011). European societies will also have to modernize social welfare systems so that the disincentives to work are minimized. Denmark, Germany, and Ireland may inspire others how this can be done. But what needs to be done is not hard to see: Europeans will have to work for more years.

From distinct to distinguished

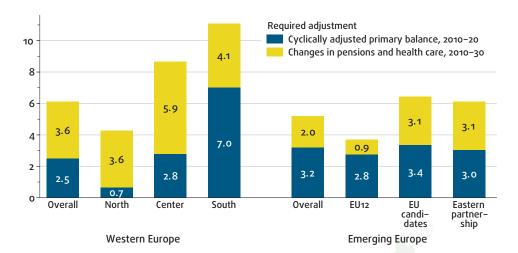
In 2007 An East Asian Renaissance, a report by the World Bank, introduced the notion of the "middle-income trap" (Gill and Kharas 2007). It was about why countries seem to easily grow from low per capita income levels to middle income, but find it difficult to become and remain high-income economies. Later research identified about two dozen countries that have grown from middle income to high income since 1987. Some had discovered oil, like Oman and Trinidad and Tobago. But this can hardly be a development model for others to emulate, because it is a matter more of providence than policy. Some, like Hong Kong SAR, China; Singapore; and Republic of Korea, had translated peace into prosperity through export-led strategies that involved working and saving a lot and sometimes postponing political liberties for later. They had to be aggressive, like tigers, looking out only for themselves.

But of the countries that have grown quickly from middle-income to high- income, half—Croatia, Cyprus, the Czech Republic, Estonia, Greece, Hungary, Latvia, Malta, Poland, Portugal, the Slovak Republic, and Slovenia—are in Europe. If you can be a part of the formidable European convergence machine, you do not need to be extraordinarily fortunate to become prosperous nor—like the East Asian Tigers—do you have to be ferocious. You just have to be disciplined.

The inability of this convergence machine to continue to deliver rapid growth and an improved quality of life in the advanced economies of Western Europe has been recognized for some time. Europe's policymakers have put together protocols and commitments to encourage innovation and dynamism. Policies that were a core component of Europe's postwar growth model—or those that evolved from

Figure 19: Western Europe has to reduce fiscal deficits by 6 percent of GDP, emerging Europe by less

(illustrative fiscal adjustment needs, 2010–30, percentage of GDP)



Note: The fiscal impacts of aging on pensions and health care systems are missing for EU candidate and eastern partnership countries. For this exercise, the sum of adjustment in health care spending is assumed to be the same as for the new member states. The adjustment in pension related spending is assumed to be the same as that for Southern Europe. Western Europe comprises Denmark, Finland, Iceland, Norway, and Sweden (North); Austria, Belgium, France, Germany, Ireland, Luxembourg, the Netherlands, Switzerland, and the United Kingdom (Center); Greece, Italy, Portugal, and Spain (South). Overall Western Europe contains all the countries belonging to these three groups. Overall emerging Europe includes all countries from EU12, EU candidates, and eastern partnership.

Source: Calculations by staff of the Institute for Structural Research in Poland and the World Bank, based on IMF WEO; see chapter 7.

it—are not giving European economies enough flexibility to take advantage of new technologies that have led to high productivity growth in Asia and North America during the last 15 years. It is not that European product market regulation and employment protection became more stringent over time; they just became more costly.

The Western European model that so effectively enabled catch-up has created "afterglow" institutions that are hindering growth in a different age—an era of greater competition abroad and big demographic shifts at home. These institutions now need updating. In the states aspiring to become part of the machine, notably the candidates, potential candidates, and the Eastern Neighborhood, the afterglow structures will probably not preclude the benefits that come from greater economic union. In the new member states too, these institutions may not yet prevent productivity gains if their ties with advanced Europe become stronger and sophisticated. In the western economies, the structures must quickly be made more flexible. Convergence to a rigid core may soon become unappealing.

The European Union has a growth strategy, Europe 2020, which recognizes this imperative. Not all of the 45 countries covered by this report are in the European Union, but most share the aspirations of Europe 2020: economic development that is smart, sustainable, and inclusive. Europe's way of life—and its growth ambitions—put a premium on combining economic dynamism with environmental sustainability and social cohesion.





Europe's economic model is already more environment-friendly than most. It has made production cleaner than any other part of the world except Japan, and will become the lowest per capita emitter of carbon dioxide by 2020. But it is still the largest importer of emissions (embedded in imported products—figure 20), polluting not as much through production as by proxy. Europeans will need to do more on the consumption side to be considered truly green. It is a testament to European ideals that Europe is willing to pay the most to avert global warming while it is likely to be damaged least. There is reason to believe that Europe's economic model can become greener without unduly sacrificing growth: Germany, France, and Sweden may already be showing the way.

Social cohesion is the cornerstone of Europe's economic model, but this aspiration must be realized in ways consistent with sound economic principles. It can be, because Europe has three priceless assets: the European Union's single market, a momentum for regional integration, and the global influence that comes from being the generator of one-third of the world's annual output. Inclusive development will be a natural outcome of measures to deepen the single market, expand the scope of regional economic integration, and preserve Europe's global influence (chapter 8).

This will require adjustments in all of the European economic model's six components. The rules to guide policymakers—adapted from Phelps (1966)—might look something like the following:

- Extend the benefits of freer trade to those outside the European Union.
 Enlargement has made Europe stronger, and economic integration should be continued toward the east. The single market can be made deeper and wider at the same time.
- Borrow from abroad only for investment. In Europe, where foreign finance has been used for private investment, it has fueled growth and convergence. But relying on foreign capital to finance consumption makes economies everywhere more vulnerable than dynamic.
- Provide enterprises with the freedom to start up, grow, and shut down. Efficient regulation of enterprise trusts but verifies, makes compliance easy but punishes violation, and assesses risks and concentrates resources where risks are highest.
- Use public money to catalyze private innovation, not substitute for it. Effective
 innovation policy sets the table for innovators to thrive by supporting inventions,
 mobilizing finance, and bringing the power of choice and the resources of business
 into Europe's universities.
- Design labor laws to treat insiders and outsiders more equally. Regulations should not favor either those with jobs or those without. Seeing labor as a fixed lump to be divided among workers leads to poor rules for regulating work.
- Consider government debt mainly as a way to finance public investment.
 With high debt levels and modest growth prospects, public finance should be premised on the expectation that future generations will not be much wealthier than today's. Social protection, social services, and public administration should be financed with taxes and contributions, not sovereign debt.

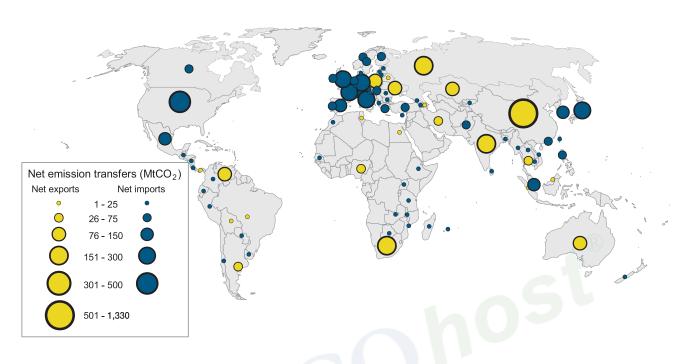


Figure 20: Greening production but not consumption

(net CO2 emission transfers [territorial minus consumption emissions], 2008)

Note: MtCO2 = million tons of carbon dioxide. Source: World Bank staff, using data from Peters and others (2011); see spotlight 2. European economies do not have to become North American or East Asian to keep to these rules. But Europe might learn a few lessons from them. From North Americans, Europe could learn that economic liberty and social security have to be balanced with care: nations that sacrifice too much economic freedom for social security can end up with neither, impairing both enterprise and government. To get this balance wrong could mean giving up Europe's way of life and its place in the world. From the Japanese, the Koreans, and the Chinese, Europe might learn that while the gifts of prosperity and longevity arrive together, they have to be unbundled: being wealthier means that Europeans do not have to work as hard as before, but living longer means having to work more years, not fewer. To do otherwise unjustly burdens future generations, and violates growth's golden rule.

Europeans can of course learn the easiest and most from each other. The countries in Europe that have instituted policies manifesting both cultural maturity and economic discipline have shown how a distinct growth model can be made distinguished (table 2).









The September 1961 volume of the American Economic Review might well be the most influential issue of an economic journal ever. A dozen or so pages after the article on optimum growth paths by Phelps is a short communication from Robert Mundell that outlines a theory of "optimum currency areas." It states the conditions that the countries in a monetary union had to have—or quickly institute—to share a single currency profitably. In practical terms, it meant ensuring that the single currency should not lead to persistently high unemployment rates in some parts of the monetary union, nor to unacceptably high rates of inflation in others. In 1999, Mundell was awarded the Nobel Prize for "his analysis of monetary and fiscal policy under different exchange rate regimes and his analysis of optimum currency areas."

The conditions for a successful monetary union identified in the 1961 article can be distilled to mobility of labor and capital among the member states. To understand why, imagine a fall in economic activity in one part of the union (say the south) and a rise in another (say the north). This would cause unemployment to rise in the south, and inflationary pressures and balance-of-payments surpluses to increase in the north. If the central bank increases the money supply, it might help the south but would aggravate inflation in the north. If it does not, high unemployment in the south would cause suffering. But if capital and

labor were quick to move within the monetary union, the dilemma would disappear.

For a practical application of his ideas, Mundell chose Western Europe, presaging today's debates about the euro. "In Western Europe the creation of the Common Market is regarded by many as an important step toward eventual political union, and the subject of a common currency ... has been much discussed. One can cite the well-known position of J. E. Meade, who argues that the conditions for a common currency in Western Europe do not exist, and that, especially because of the lack of labor mobility, a system of flexible exchange rates would be more effective in promoting balance-of-payments equilibrium and internal stability; and the apparently opposite view of Tibor Scitovsky who favors a common currency because he believes that it would induce a greater degree of capital mobility, but further adds that steps must be taken to make labor more mobile and to facilitate supranational employment policies."

The introduction of the euro undoubtedly increased capital mobility in the eurozone; one can reasonably expect a single currency to greatly facilitate financial integration. The single currency undoubtedly also facilitated the exchange of goods. But a single currency cannot by itself increase people's mobility. This requires states to harmonize labor regulations, education and training arrangements, and social security and welfare systems. Growing

goods trade in the eurozone may reduce the need for labor mobility, but trade in servicesnow three-quarters of Western Europe's output-itself often requires movement of people. So does keeping manageable unemployment differences among countries.

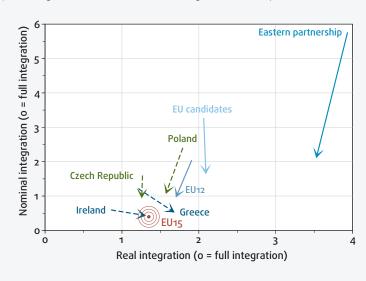
In the decade before the global financial crisis, European economic integration showed impressive progress. But for many countries, the progress was unbalanced (box figure 1)—more rapid in financial areas (interest rates and inflation) than in real sectors (trade and incomes). It was more balanced for the new member states. Poland, for example, became more integrated in financial and real terms. The EU candidate countries (represented here by Croatia and Turkey) experienced just financial integration. But while integrating in monetary and financial aspects, Greece became less integrated within the EU15 in real terms.

Labor mobility in Europe is the lowest in the developed world. Mundell's communication 50 years ago suggests that this will be a serious problem for the eurozone. Increasing labor mobility may be a privilege in Europe, but it is a prerequisite in the eurozone. Countries that integrate their labor markets will be able to share a single currency profitably. Others will have to deal with stressful tradeoffs between inflation and unemployment.

Source: Mundell 1961; Sugawara and Zalduendo 2010.

Box figure 1: More monetary and financial than real integration in Europe during the last decade

(arrows begin in 1997 and end in 2008; the origin indicates complete nominal and real integration)



Note: The figure shows the extent of economic integration, using the theory of optimum currency areas (Mundell 1961). The vertical axis combines in one index of dissimilarity three indicators of nominal integration-volatility of exchange rates, convergence in inflation rates, and convergence in interest rates. The horizontal axis does the same with three indicators of real integration-extent of synchronization in business cycles measured by indices of industrial production, trade integration, and per capita income. The origin in the figure represents perfect economic integration, and the arrows show the integration path of each country or group of countries in 1997-2008. EU candidates are represented by Croatia and Turkey; the eastern partnership countries by Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine; and the EU's new member states by Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic, and Slovenia. Source: Sugawara and Zalduendo 2010.

applicable copyright law.

Notes

- 1 Phelps, Edmund. 1961. "The Golden Rule of Accumulation: A Fable for Growthmen," The American Economic Review, Vol. 51, No. 4. (September, 1961), pp. 638-643.
- 2 Among the economists were Maurice Allais, Tjalling Koopmans, Joan Robinson, John von Neumann, Robert Solow, and Trevor Swan.
- 3 von Weizsäcker, Carl Christian. 1962. Wachstum, Zins und optimale Investitionsquote, Tübingen (Mohr-Siebeck), 96 pages.
- 4 The report covers 45 countries: the 27 member states of the European Union, 4 countries in the European Free Trade Association (Iceland, Liechtenstein, Norway, and Switzerland), 8 candidate and potential candidate countries (Albania, Bosnia and Herzegovina, Croatia, Kosovo, the former Yugoslav Republic of Macedonia, Montenegro, Serbia, and Turkey), and 6 eastern partnership countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine).

Table 2: 30 questions, 30 answers

Chapter 1: The European growth model

What makes the European economic model unique?

The principal components of Europe's growth model—trade, finance, enterprise, innovation, labor, and government—are organized in unique ways.

Have changes in Europe and the rest of the world made a new economic model necessary?

Sluggish productivity growth, a declining workforce, and growing fiscal imbalances have revealed weaknesses of the European economic model, and the entry of a billion Asian workers into the global market is adding to the stress.

Which parts of the European model should be preserved, and which changed?

Many changes are needed in how governments and labor markets are organized. Fewer changes are needed to foster innovation, productivity growth, and job creation by enterprises, and fewer still to improve finance and trade in Europe.

Chapter 2: Trade

Is "Factory Europe" as dynamic as "Factory Asia"?

Factory Asia is growing faster, but goods trade in Europe is more sophisticated.

Is the Single Market for Services underachieving compared with the United States?

The single market is working quite well for traditional services such as travel and transport, but it is underperforming in modern services such as insurance, information technology, and other business services.

Is the Common Agricultural Policy compromising Europe's global leadership?

> The European Union's agricultural policies hobble the extension of the single market to its neighbors, and Europe is missing an opportunity to improve the lives of 75 million people in the eastern partnership countries.









Why is finance in emerging Europe different from other regions?

> The prospect of membership in the European Union exerts a powerful policy and institutional pull, making Europe unique and strengthening the link between foreign savings and economic growth.

How did some European economies benefit more from international financial flows than others?

> European economies that managed to "boom-proof" public finances and "crisis-proof" private financing without resorting to the costly selfinsurance seen in Asia benefited from foreign financial flows.

Is there evidence of a "debt overhang" in emerging Europe that reduces growth and justifies government intervention?

In emerging Europe, treasuries, enterprises, and households do not face a debt overhang, but in the eurozone's periphery this problem is acute, posing a danger for banks everywhere.

Chapter 4: Enterprise

What does Europe expect from its enterprises?

> Workers expect enterprises in Europe to create jobs, shareholders to generate value added, and governments to bring in sizable export earnings.

How have European firms done in an enlarged Europe?

In most parts of Europe, firms have taken advantage of greater regional integration to decentralize production, attract foreign investment, and expand the markets for their products.

Why did some parts of Europe do better than others?

> In Western and Eastern Europe, industrial structures were better suited for a single market; Southern European enterprises have been slower to offshore activities and to attract foreign investors.

Which government policies help enterprises do better?

> In advanced European economies, many governments have to streamline regulations to make doing business easier; in emerging Europe, most have to improve infrastructure and credit as well.

Chapter 5: Innovation

How much does Europe's innovation deficit matter?

> Europe's innovation deficit matters most for the EU15, and so it also matters for the economies of emerging Europe because they are closely integrated.

Why does Europe do less R&D than the United States, Japan, and the Republic of Korea?

> European enterprises do less R&D than American firms because they tend to be in sectors that are not as innovation-oriented.

What are the special attributes of a successful European innovation system?

> The most innovative European economies such as Switzerland spend a lot on R&D, but also share key attributes with the United States—tight businessuniversity links, good management skills, and top universities.

What should European governments do to increase innovation?

Measures to fully integrate the Single Market for Services will provide the scale, more privately funded universities will supply the skills, and regulations that foster competition will create the incentives for European enterprises to innovate.

Chapter 6: Labor

Is there a European work model?

European economies generally have more stringent employment protection and more generous social benefits than their peers in North America and East Asia.

Given demographic changes, how can Europe achieve a stable and more productive workforce?

Increased participation can help stem the decline of the workforce, but more competition for jobs, greater mobility within Europe, and measures to attract global talent will still be necessary.

Are employment and social protection practices inhibiting labor participation and efficiency?

> Employment protection gives too much power to those with jobs while banishing others to the fringes of the labor market, and generous social benefits weaken the incentives to work.

Is Europe taking full advantage of the benefits associated with internal labor mobility?

Migration among and within countries in Europe is still low, and even intra-EU migration falls short of the European Union's aspiration of a fully integrated labor market.

How can Europe become a global magnet for talent?

Europe needs an approach to global talent with policies that link immigration to labor markets, and a business climate that rewards skills and entrepreneurship.

Chapter 7: Government

Are governments in Europe bigger than elsewhere?

Sovernments in Europe spend about 10 percent of GDP more than their peers, and this is almost entirely because they spend more on social protection.

Is big government a drag on growth in Europe?

Controlling for other differences, European economies with government spending greater than 40 percent of GDP have had much lower growth rates during the last 15 years.

If big government impedes growth, how do countries such as Sweden do so well?

Countries like Sweden have big governments, but they deliver high-quality social services, make it easy for citizens and enterprises to comply with taxes and regulations, and have high levels of social trust.

How can governments be made more efficient?

Countries where government works have made their bureaucracies leaner, fiscal institutions more reliable, public services competitive, tax administration effective, and citizens more empowered.

Should fiscal consolidation be a top policy priority in Europe?

To respond to market pressures and aging populations, almost every country in Europe must make big fiscal adjustments to reduce public debt to precrisis levels.

Chapter 8: Golden growth

How can Europe make the single market more efficient?

Greater labor mobility and more uniform national regulations for modern business services are making the single market more efficient.

How can Europe maintain the momentum for regional economic integration?

Sustaining economic integration requires making the single market efficient, crisis-proofing financial flows, and facilitating production networks through improved public services in emerging Europe.

What is needed to maintain Europe's global leadership?

To remain a global economic leader, Europe has to sustain regional integration, reduce public debt, reform social security, revamp employment protection laws, and institute policies to attract talent from around the world.

Source: Chapters 1–8.

References



Blanchard, O., and F. Giavazzi. 2002. "Current Account Deficits in the Euro Area: The End of the Feldstein-Horioka Puzzle?" Brookings Papers on Economic Activity 2002 (2): 147-186.

Bonin, H., W. Eichhorst, C. Florman, M. Hansen, L. Skiöld, J. Stuhler, K. Tatsiramos, H. Thomasen, and K. Zimmermann. 2008. "Geographic Mobility in the European Union: Optimising Its Economic and Social Benefits." IZA Research Report 19, Institute for the Study of Labor, Bonn.

Conference Board, The. 2011. "Total Economy Database." January 2011, The Conference Board, New York, NY. Available at www.conference-board.org/data/ economydatabase. Accessed September 3, 2011

Feldstein, M., and C. Horioka. 1980. "Domestic Saving and International Capital Flows." The Economic Journal 90 (358): 314-329.

Gill, I., and H. Kharas. 2007. An East Asian Renaissance: Ideas for Economic Growth. With D. Bhattasali, M. Brahmbhatt, G. Datt, M. Haddad, E. Mountfield, R. Tatucu, E. Vostroknutova. Washington, DC: World Bank.

Heston, A., R. Summers, and B. Aten. 2011. "Penn World Table Version 7.0." May, Center for International Comparisons of Production, Income and Prices, University of Pennsylvania, Pennsylvania, PA.

ILO (International Labour Office). 2010. Key indicators of the Labour Market, Sixth Edition. Geneva: ILO.

Iwulska, A. 2011. "Country Benchmarks." Prepared for this report. Available at www. worldbank.org/goldengrowth. Accessed January 23, 2012.

Maddison, A. 1996. "Macroeconomic Accounts for European Countries." In Quantitative Aspects of Post-War European Economic Growth, ed. B. van Ark, and N. Crafts: 27-83. New York, NY: Cambridge University Press.

Morley, J., and T. Ward. 2008. "Perceptions of Globalisation: Attitudes and Responses in the EU." Comparative analytical report, March 4, European Foundation for the Improvement of Living and Working Conditions, Dublin.

Mundell, R. 1961. "A Theory of Optimum Currency Area." The American Economic Review 51 (4): 657-665.

OECD (Organisation for Economic Cooperation and Development). 2005. OECD Employment Outlook 2005. Paris: OECD.

OECD (Organisation for Economic Cooperation and Development). 2006. Live Longer, Work Longer. Paris: OECD.

OECD (Organisation for Economic Cooperation and Development). 2007. OECD Economic Surveys: European Union 2007. Paris: OECD.

OECD (Organisation for Economic Cooperation and Development). 2011. Health at a Glance 2011: OECD Indicators. Paris: OECD.

Peters, G., J. Minx, C. Weber, and O. Edenhofer. 2011. "Growth in Emission Transfers via International Trade from 1990 to 2008." Proceedings of the National Academy of Sciences 108 (21): 8903-8908.

Phelps, E. 1961. "The Golden Rule of Accumulation: A Fable for Growthmen." The American Economic Review 51 (4): 638–643.

Phelps, E. 1966. Golden Rules of Economic Growth: Studies of Efficient and Optimal Investment. New York, NY: W.W. Norton.

Stockholm International Peace Research Institute. 2011. SIPRI Yearbook 2011: Armaments, Disarmament and International Security. New York, NY: Oxford University

Sugawara, N., and J. Zalduendo. 2010. "How Much Economic Integration Is There in the Extended EU Family?" ECAnomics Note 10/1, Office of the Chief Economist, Europe and Central Asia Region, World Bank, Washington, DC. Background paper for this report.

UNCTAD (United Nations Conference on Trade and Development). 2010. World Investment Report 2010: Investing in a Low-Carbon Economy. New York, NY: UN.

von Weizsäcker, C. 1962. Wachstum, Zins und optimale Investitionsquote. (Dissertation). Tübingen: Mohr-Siebeck

Weigand, C., and M. Grosh. 2008. "Levels and Patterns of Safety Net Spending in Developing and Transition Countries." Social Protection Discussion Paper 0817, Human Development Network, World Bank, Washington, DC.

WTO (World Trade Organization). 2009. International Trade Statistics 2009. Geneva: WTO.

Chapter 1

The European growth model

When this report was being finalized in late 2011, Europe was in crisis. The nations of Europe that had given up the most prized symbol of sovereignty—their currency—in exchange for the euro had the most troubled economies in the world. The countries that had ostensibly integrated the most were the ones deepest in trouble-surely a sign of a deeply flawed growth model.

But if Aristotle were writing about the good life today, he could still consider Europe. Europeans live long and largely healthy lives. They work less than workers in other prosperous societies. European incomes are not as high as American incomes, but most European countries have high-income economies. They have built these economies with democratic and representative societies, sacrificing neither civil liberties nor basic needs. And along the way, they have looked after the unfortunate among them and helped poorer nations in the neighborhood.

During the "Golden Age of European Growth," the early 1950s to the mid-1970s, Western European incomes converged toward those in the United States. From the mid-1970s to the early 1990s, the incomes of more than 100 million people in the poorer southern periphery—Greece, southern Italy, Portugal, and Spain—rapidly converged on those of advanced Europe. After the fall of the Berlin Wall, the European Union absorbed another 100 million people in Central and Eastern Europe. Incomes in these countries have converged quickly. As another 100 million people in the Balkan states and Turkey wait to enter the world's most powerful association of nations, they are already benefiting from the aspirations and institutions that helped almost half a billion people achieve the highest standard of living in the world.



- What makes the European economic model unique?
- Have changes in Europe and the rest of the world made a new economic model necessary?
- Which parts of the European model should be preserved, and which should be changed?

One could say without exaggeration that Europe had invented a "convergence machine," taking in poor countries and helping them become high-income economies. In other parts of the world, middle-income countries had to be extraordinarily fortunate—finding oil, for example—or unusually ferocious, such as the East Asian Tigers, to become wealthy. In Europe, they did not need to be either.

European societies are not only among the wealthiest in the world but also among the most equal. Europeans benefit from near-universal access to social services, including universal health care and free primary, secondary, and in many countries, tertiary education. They are protected by an elaborate system of social insurance. Due to smaller wage differentials, higher and more progressive taxes, and more generous social transfers, income distribution in Europe is more equal than in the United States, Japan, and most emerging market economies. At the same time, Europe has become greener over the past two decades and—except for Japan—is more energy-efficient than other high-income countries.

Perhaps most important, after two continental wars in the first half of the twentieth century, Europe has found peace through economic and political integration. This unique achievement is at the heart of Europe's remarkable economic success after 1945 and the peaceful transformation of the countries in Central and Eastern Europe after the fall of the Berlin Wall. As economist Paul Krugman notes, "The Europeans have shown us that peace and unity can be brought to a region with a history of violence, and in the process they have created perhaps the most decent societies in human history, combining democracy and human rights with a level of individual economic security that America comes nowhere close to matching" (Krugman 2011).

The citizens of Europe appear to appreciate these achievements. According to the Eurobarometer, a survey of EU citizens conducted twice a year, most Europeans are optimistic about the future. Other surveys find that Europeans lead not only long and healthy lives, but also happy ones (Veenhoven 2011).

All this was keenly appreciated before the latest crisis. Europe's economic and social conditions in 2011 provide a stark contrast to its achievements over the past six decades. Since 2009, Europeans have had to accept cuts in incomes and social spending, sparking angry protests in some countries. Markets fret over high sovereign debt, and question the inconsistencies between a shared currency and widening differentials in fiscal discipline and entrepreneurial abilities among the members of the eurozone. Even more seriously, they question the ability of the worst-afflicted countries to grow their way out of the crisis.

These concerns are not new. In 2002, the Lisbon Agenda had recognized Europe's disadvantage in innovation and productivity growth relative to the United States and Asia. The global economic and financial crisis of 2008–09 left scars in Europe, especially in its periphery, and strained European institutions. The European Commission has repeatedly pointed to long-standing competitiveness issues across the region. European leaders today face the hard task of selling tough adjustment to a reticent population, reassuring markets

Recent developments can also be seen as a challenge to the integration at the center of Europe's unique success. An increase in North African refugees after the Arab Spring prompted calls by French and Italian leaders to restrict the free movement of people between countries that are members of the Schengen Agreement. The fear of competition from workers from new member states in Eastern Europe is widespread even in countries facing acute shortages of qualified labor, such as Germany. High rates of youth unemployment in several European countries and persistent pockets of social exclusion stand in contrast with the ideals of European solidarity. Even as Europe's new members in the east have rapidly caught up with their western neighbors, Europe's southern economies have started to fall behind, prompting concerns that Europe's latest enlargement may have been at the expense of the weaker among the EU's older members. Coordinated action by banks and supervisors during 2008-09 avoided rapid deleveraging by parent banks that had expanded into Eastern Europe. However, the same outcome is not guaranteed if national supervisors focus on shoring up the domestic capital base of their banks at the expense of faster deleveraging abroad.

Not surprisingly, support for further enlargement in the European Union is declining, though it runs higher among new members.¹ Citizens of the EU's neighboring countries, too, have started to doubt the EU's attractiveness. Support for EU membership is falling in Turkey.² Ukraine has reverted to a foreign policy that tries to balance commitment to integration with Europe and reintegration with the Russian Federation. In Serbia, polls indicate only a thin majority in favor of EU membership. The model of European integration and solidarity may not be coming apart at the seams, but it is fraying at the edges.

Europeans have become less confident that their development model can sustain improvements in living standards, and neighboring countries are cautious about joining an aging and ailing club. Although many people in the world admire Europe, some suspect the continent's best days are past. After the achievements of the last six decades, Europe's economy has lost some of its lustre.

What makes Europe unique

Although the end of European complacency is good, a loss of confidence in the European model may be dangerous. In a rush to rejuvenate growth, the positive attributes of the European development model may be abandoned along with the negative. By identifying the European growth model's strengths and weaknesses, this report aims to reduce the risk of policymakers inadvertently discarding the best parts of Europe's economic approach.

It is fair to ask if it is possible to rigorously identify a growth model except in narrow technical terms defining the interaction of technology, capital, and labor.

This report takes a more practical approach by analyzing the six activities that are the principal components of an economic model: enterprise, labor, trade, finance, innovation, and government. This approach is motivated by a broad concept of economic and social advancement (box 1.1).

It is also fair to ask whether it is appropriate to assume a "European model." There are differences in how Ireland and Italy regulate enterprise and labor, or how Germany and Greece balance fiscal and social policies. There are differences in what Spain and Sweden export, and how they regulate trade in services. There are differences in how Poland and Portugal regulate their banks, and not just because one shares a common currency while the other has its own. There are differences in how Finland and France provide essential government services, and each approach has merits. Because of these differences, various subgroups of countries within Europe are analyzed and contrasted in subsequent chapters of this report.3 This chapter emphasizes what is common across different parts of Europe; the next six chapters identify what is different and why.

But these differences in specifics do not rule out common principles that together constitute a unique approach to economic growth and social progress. This common approach consists of policies and institutions that govern trade and finance, enterprise and innovation, and labor and government. Together they define an economic and social model that is uniquely European. This report is premised on the belief that all parts of Europe—EU member states, candidates and potential candidates, and nations in the EU eastern partnership countries—share the aspirations that motivate a common European model, sometimes summarized as "the social market economy" (box 1.2). This report identifies features of this model that should be preserved and those that must be changed, analyzes how change can occur, and presents examples from Europe and around the world that illustrate how countries have successfully made some of these changes.

Box 1.1: Europe's economic model and its standard of living

Jones and Klenow (2010) propose a broad notion of the standard of living that captures not just the level of national income, but also its distribution, how much of it is available for consumption, how much leisure people need to trade to achieve their level of consumption, and how long they can be expected to live. Calibrating such a broad, consumption-based concept of welfare to existing data reveals that many European countries approach levels of welfare in the United States, despite considerably lower levels of national income. By contrast, the performance of emerging markets in Asia and Latin America looks less impressive than in Europe, because growth there has often been associated with a declining share for consumption and rising

income inequality.

The basic idea of Jones and Klenow can be related to the practical approach taken in this report to analyze Europe's economic and social model. The activities of enterprises, their innovation and entrepreneurship, the trade links between them, and their access to finance and skills determine the productivity of an economy and its aggregate income level. The organization of labor determines how long people have to work to afford a particular level of consumption and whether such work is available for all. The activities of government determine how much income is redistributed, what skills are formed in the education system, and the access to and cost

of health care and social insurance that impact what risks people take and how long they can expect to live.

Jones and Klenow note that their measure of economic welfare does not capture possible tradeoffs between present and future generations. It captures only the expected welfare of consumers today and does not address environmental sustainability. Intertemporally optimal or "golden" growth paths have been analyzed by Phelps (1961), among others. Europeans today have to find ways to safeguard the high level of economic welfare achieved over the last six decades while ensuring that future generations do not have fewer opportunities.

Box 1.2: Europe's postwar consensus: the social market economy

The idea of the social market economy is simple: combine the efficiency of markets with social fairness, and combine economic freedom with basic social security. The conceptual fathers of the social market economy, such as Walter Eucken (1940) and Alfred Müller-Armack (1947), were liberals in the European sense of the term. They emphasized the role of free markets in allocating resources and of private property and contract rights in organizing economic activity. Their positions ran counter to the pervasive skepticism of markets and private property in Europe during the Great Depression (Phelps 2007). But they also emphasized the need for government activism to safeguard markets through competition policy and to deal with externalities through regulatory interventions. Private businesses were expected to be responsible for the consequences of their activities-a kind of generalized "polluters pay" principle.

For Eucken, government intervention to achieve social objectives would be limited to progressive taxation, basic social security, and unemployment insurance. Müller-Armack saw a need for structural interventions to achieve distributional objectives in addition to measures to safeguard market competition. He explicitly referred to the reconciliatory role of the social market economy. Indeed, the need for social consensus after the ravages of the war and in the face of the communist alternative developing in Eastern Europe led to government interventions beyond those originally foreseen by the fathers of the social market economy. In the German labor market, centralized wage bargaining was introduced and large companies adopted codetermination in management. Across Europe, the 1950s saw a rapid increase in social insurance and transfers. Generous pay-as-you-go pension systems were put in place, benefiting from favorable postwar demographics and reflecting the need to provide for a generation

that often had lost private savings and assets as a result of war and economic turbulence. For Europeans, to make the market acceptable, the "animal spirits" of capitalism needed to be

The idea of the social market economy was the basis for policy mainly in Austria and Germany, and its corporatist application extended across Scandinavia and the Benelux states. France chose a more interventionist model with the nationalization of strategic industries such as mining, transport, and finance as well as large manufacturing companies such as Renault. Common to all continental economies was the emphasis on a social consensus between capital and labor. This was often organized by a state that supported high savings and investment rates, which in turn led to the easy adoption of frontier technologies from the United States and resulted in quick income convergence (DeLong 1997; Eichengreen 1996; see spotlight one in this report).

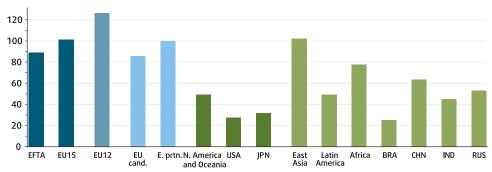
The principal components of the European growth model

The organization of Europe's main economic activities demonstrates what is unique about the European development model.

- Trade. Richer and poorer economies are more integrated than in any other part of the world, resulting in quicker convergence in living standards than in incomes, which in turn is quicker than convergence in institutional quality.
- Finance. Europe is the only region where private capital in all its forms foreign direct investment (FDI), nonfinancial and financial FDI, and portfolio funds—flows downhill from richer to poorer countries and from low-growth to high-growth economies.
- Enterprise. Private enterprise is accountable to shareholders for profit, but it is also held more responsible for the social and environmental consequences of its actions than in other parts of the world.
- Innovation. Research and development (R&D) and tertiary education, recognized around the globe for their economic spillovers, are viewed in Europe as primarily the responsibility of the state.
- Labor. Workers in Europe enjoy the most effective protection against abuse by employers and the most generous wage, job security, and nonwage benefits—such as unemployment insurance, paid leave, and pensions—of any workers in the world.
- Government. National governments are more redistributive, and supranational coordination in Europe is the world's most advanced.

Figure 1.1: Europe is the most open region in the world

(trade, exports plus imports, as percentage of GDP, average of 2005–09)



Note: "EU cand." refers to EU candidate countries and "E. prtn." refers to EU eastern partnership countries.

Source: WDI.

One can—and should—ask whether these achievements are sustainable in today's world, or whether some countries have applied some of these principles poorly. Before answering that question, though, it is useful to note that the European growth model has resulted in a deeper integration and quicker convergence between advanced and developing economies than in any other part of the world. European enterprises balance corporate mandates and social responsibility, and governments mobilize taxpayers to aid innovation. Despite considerable economic uncertainty, European workers still benefit from a high level of security, and no societies achieve better egalitarian outcomes in market economies.

Trade and Finance: deeper integration and quicker convergence

European economies are more integrated than any others in the world. Trade flows relative to gross domestic product (GDP) are much higher in European countries, especially in the new EU member states (EU12), than in other parts of the world (figure 1.1).4 Among the 27 EU member states (EU27), trade openness is higher than in any other region, including East Asia. In the EU candidates and EU eastern partnership countries, openness is higher than in most other emerging market regions, though it is somewhat lower than in East Asia.

The large share of trade in total GDP results from low barriers to the goods trade in the single market and falling trade barriers for both goods and services in the region, as well as the relatively small size of economies in the region, similar to the developments in East Asia. But the integration of richer and poorer countries facilitates a frenetic flow of goods and makes "Factory Europe" different from the much-heralded "Factory Asia." Europe's most developed economies have been outsourcing more and more sophisticated tasks to their eastern neighbors, benefiting both sides in the process. The success in unifying national markets into a single European market has made Europe ambitious enough to consider many services as tradable within the region. But the Single Market for Services can be made a more efficient, potent source of growth in Europe (Monti 2010).

Capital flows in Europe have been the largest—as a share of economic output in the history of humankind.5 Labor mobility, while low, is picking up. This economic integration has resulted in quicker convergence in incomes than in other parts of the world (figure 1.2). Outside Europe and East Asia, there is no relation between GDP per capita in 1970 and its growth rate between 1970 and 2009.6 European countries that were poorer in 1970 experienced higher growth than countries with higher GDP per capita in 1970. East Asia is the other region in the world where convergence in incomes has been observed, but the link between initial income per capita and subsequent growth is much less robust.7

Capital flows are fundamental to income convergence in Europe. In Europe, capital flows "downhill," as predicted in economic theory (Lucas 1990). Outside Europe, capital flows "uphill"—from poorer countries such as China to richer ones like the United States—a puzzling but well-established pattern (Prasad, Rajan, and Subramanian 2007). Outside Europe, many forms of capital go to low-growth countries (figure 1.3).8 In other words, among many emerging markets outside Europe, high growth in incomes only happens when current account surpluses grow. This "allocation puzzle" is not a problem in Europe.9 In Europe, consistent with the fundamental tenets of economic theory, capital flows to high-growth countries, principally those in Central, Eastern, and Southeastern Europe.¹⁰ This pattern is most noticeable in the European Union and those aspiring to join it. The EU eastern partnership countries (Belarus, Moldova, Ukraine, and others) look similar to other emerging markets.

In sum, European integration has led to both a higher share of trade in output and to much larger financial flows from richer to poorer countries. Quicker convergence in living standards is the unsurprising outcome. This does not imply that living standards everywhere in Europe have converged. Some

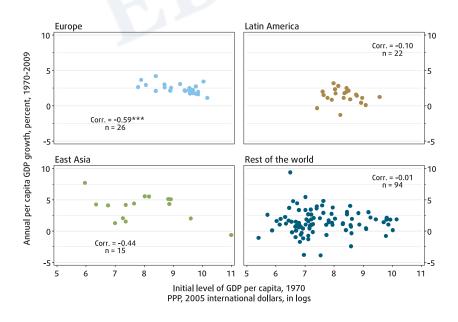


Figure 1.2: Convergence in incomes was faster in Europe than elsewhere

(GDP per capita levels in 1970 and growth from 1970 to 2009)

Source: World Bank staff calculations, based on Penn World Table 7.0 (Heston, Summers, and Aten 2011).

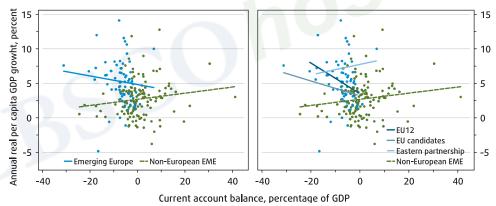
or applicable copyright law.

regions, such as Italy's Mezzogiorno, have persistently lagged. Europe's Cohesion Funds are designed to help lagging regions catch up. This has not worked well everywhere, partly because national policies have differed with respect to using these funds. Where the focus has been on integrating leading and lagging regions through connective infrastructure, such as in Ireland, regional convergence has resulted. Where instead, funds have been spent on spreading out economic activity and bringing jobs to people in lagging regions through spatially targeted interventions, success has been rare (World Bank 2009). Convergence in Europe appears to have come from market-based integration, not from nonmarket mechanisms driven by solidarity.

European integration has not, however, led to a similarly rapid convergence in the quality of institutions. There is considerable variance in institutional quality across Europe (figure 1.4). A larger "pancake" in figure 1.4 indicates better quality. The size of the pancake in the EU candidate countries or the EU eastern partnership countries is comparable with that in Latin America and smaller than in East Asia.

Figure 1.3: In much of Europe, capital flows to high-growth countries

(capital inflows (current account deficits) and per capita GDP growth, 1997–2008)



Note: Each dot represents a four-year average during the period covered: 1997-2000, 2001-04, and 2005-08.

Source: World Bank staff calculations, based on IMF WEO.

Figure 1.4: Institutional quality varies a lot within Europe

(indicators of property rights and contract enforcement, 2008–09)



Note: Indicators used are: protection of intellectual property (Fraser), property rights (WEF), property rights (Heritage), contract viability (ICRG), and rule of law (WGI). Each indicator is rescaled and then ranges from 0 to 10 showing the higher, the better quality.

Source: World Bank staff calculations, based on data from The Fraser Institute (Gwartney, Hall, and Lawson 2010), WEF (Schwab 2009 and 2010), The Heritage Foundation (Miller and Holmes 2011), ICRG, and WGI (Kaufmann, Kraay, and Mastruzzi 2010).

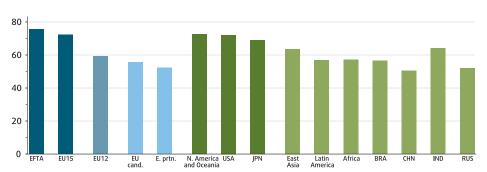


Figure 1.5: Business is expected to be socially responsible in Europe, especially in the EU

(Responsible Competitiveness Index 2007, business action component)

Note: "EU cand." refers to EU candidate countries and "E. prtn." refers to EU eastern partnership countries.

Source: MacGillivray, Begley, and Zadek 2007.

International macroeconomics texts argue that the risks investors face in poorer countries depress risk-adjusted returns and discourage investment, preventing convergence. These risks may result from the lower quality of poor countries' institutions (Acemoglu, Johnson, and Robinson 2001). The risks seem not to prevent convergence in Europe because EU membership—actual or prospective—may be an assurance of future institutional improvements. So far, this reassurance has worked to Europe's advantage.

The European debt crisis of 2011 is a reminder, however, that investors can lose confidence when the promise of institutional improvements is not kept. Countries in Europe do not need to be ferocious to converge. But the more institutionally integrated a European economy becomes, the less it can afford not to converge. Indeed, for the economies of the eurozone that share a common currency and hence are more tightly integrated than others, economic convergence is as much a prerequisite as it is a perk.

Enterprise and Innovation: more responsible competition

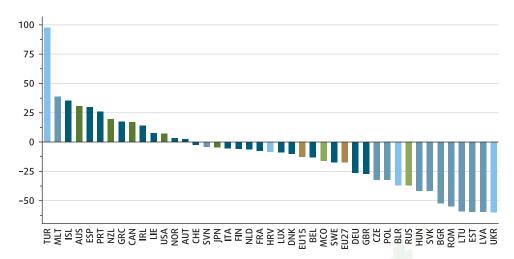
The social market economy model adopted in Europe after World War II relies upon business recognizing its social responsibilities. The extent to which this has happened varies across Europe. The business action component of the Responsible Competitiveness Index 2007 captures the efficacy of corporate bonds, the ethical behavior of firms, the wage equality of workers doing similar work, the strength of audit and accounting standards, the extent of staff training, and the occupational fatalities in regions around the world (figure 1.5).

The highest-ranked countries are all European: Sweden, Denmark, Finland, Norway, Iceland, Switzerland, the United Kingdom, the Netherlands, Ireland, and Germany are all ranked higher than the United States, Japan, and most other countries in the world. The average of Europe's advanced economies (EU15) is above that of Japan and East Asia. To the extent that the ranking reflects the preferences of investors and consumers, corporate responsibility is good for business in Europe. However, not all European countries are equal: Eastern and Southern Europe rank below East Asia and on a par with Latin America.

Greater regulation makes European producers cleaner and greener than American producers, though Japanese producers are even greener and Eastern

Figure 1.6: Emerging European countries are the best performers in emission reduction

(change in greenhouse gas emissions from the base year to 2009, percent)

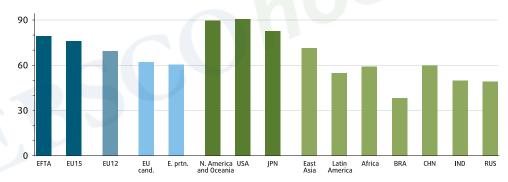


Note: Greenhouse gas excludes land use, land-use change, and forestry. The base year is, in most cases, 1990.

Source: UN Framework Convention on Climate Change.

Figure 1.7: The business climate varies substantially across Europe

(principal component analysis index of *Doing Business* ratings, 2011)



Note: Averages computed using principal component analysis (see chapter 4). Liechtenstein, Kosovo, and Malta are not covered by Doing Business, and are not included. Source: World Bank staff calculations, based on Doing Business.

Europe lags behind the rest of Europe. European leaders embrace green growth as a driver of Europe's future development model. According to the most recent data from the United Nations Framework Convention on Climate Change, European countries have made the largest reductions in greenhouse gas emissions (figure 1.6). For the former centrally planned economies, large reductions reflect their inefficient starting points. But Finland, Norway, Sweden, and Germany have achieved emission reductions as a result of investments in renewables and in energy-saving technologies, often spurred by strict emission controls or regulatory and tax measures designed to boost investment in alternative energy. Sweden is a leader in the use of biogas and Denmark in wind, while Germany and Spain have pioneered the use of subsidies to encourage renewable sources of energy. Spotlight two discusses the steps needed to make the European growth model even greener.

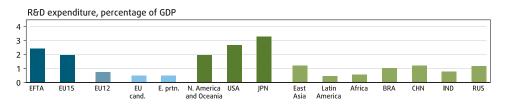
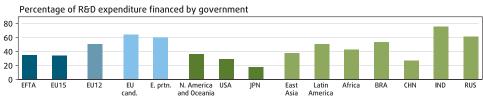


Figure 1.8: Europe's governments spend more on R&D, the private sector spends less

(R&D expenditure, 2000-09)



Note: "EU cand." refers to EU candidate countries and "E. prtn." refers to EU eastern partnership countries.

While addressing social and environmental objectives, Europe's approach to business regulation may make its enterprises uncompetitive. As described in greater detail in chapters 4 and 5, Europe's leading economies have struggled to close the productivity gap with the United States, and enterprises in Southern Europe particularly seem to suffer from excessive and cumbersome regulation. A composite index of the quality of the investment climate, based on the *Doing Business* indicators developed by the World Bank Group, shows that Europe lags the United States and Japan (figure 1.7). This has motivated calls for ambitious regulatory reform, such as in the EU's Lisbon Agenda of 2002.

Another concern is that Europe lags the United States in innovation – and this explains the persistent productivity gap – as Europe's leading economies no longer benefit from the technological catch-up that drove growth during the first three postwar decades (Aghion and Howitt 2006). Europe's approach to innovation assigns a bigger role to government for promoting scientific research and tertiary education. Worries about Europe's innovation shortfall have led to Europe-wide targets for R&D spending. This approach does not seem to be working (figure 1.8). The bulk of the world's R&D takes place in the United States, Western Europe, and Northeast Asia, but Europe is falling behind—due to the smaller role of the private sector in R&D spending. EU15 governments spend the same share of GDP on R&D as Japan and the United States, but European enterprises spend only about a third of what their U.S. and Japanese counterparts spend. The result is the same when the new member states are compared with emerging East Asia.

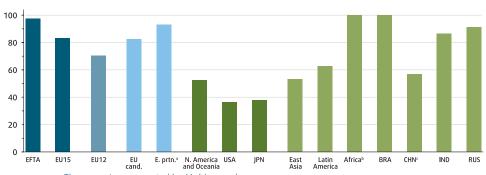
Likewise, governments in Europe bear almost all of the expense of university education (figure 1.9). Universities in many European countries are free, though the United Kingdom and several German states recently introduced or raised tuition fees. Universities are predominantly public in Europe, in contrast with the leading universities in the United States and, increasingly, Asia. Lower private financing of tertiary education in Europe may hinder the flow of new ideas from academics to business and contribute to lower private sector R&D investment. Much of the rest of the world (Brazil, India, and Russia, for example) has largely followed the European model of state-dominated university education, but

Figure 1.9: European governments account for the bulk of tertiary education spending (tertiary education expenditure, public

(tertiary education expenditure, public sources, 2000–09, percentage of total expenditure on tertiary education)



(labor use in Europe and other countries, average of 2005–09)

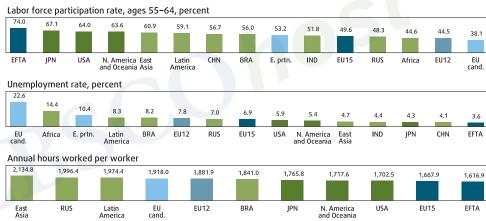


- a. The group is represented by Moldova only.
- b. Data are available for Tunisia only.
- c. Data for China are from 1999.

Note: "EU cand." refers to EU candidate countries and "E. prtn."

refers to EU eastern partnership countries.

Source: World Bank Education Statistics (EdStats); and OECD Education Statistics.



Note: "EU cand." refers to EU candidate countries and "E. prtn." refers to EU eastern partnership countries. Source: ILO 2010b; and Conference Board 2011.

fast-growing East Asia is moving toward the U.S. blend of private and state universities.

Europe must consider whether greater regulation and government participation in R&D will help or hurt enterprise and innovation, and widen or shrink the productivity gaps between the United States and the EU15, and between East Asia and the EU12.

Labor and Government: greater security and equality

Work conditions in Europe are better than in other parts of the world. Europeans work fewer hours a week, fewer weeks a year, and fewer years during their lifetime than workers in other regions.

Roxburgh and Mischke (2011) estimate that the annual hours worked per capita in the EU15 is 733, about a month less than in the United States. The fewer work

weeks a year account for half of this difference. The remaining half is due to the lower incidence of women working part-time (around 20 percent); a lower participation rate among 55-64-year-olds as a result of early retirement (15 percent); higher unemployment in Europe (6 percent); and other factors (around 10 percent). In a broader regional comparison, the EU15 stands out for low participation rates among 55–64-year-olds (both male and female) and a low number of hours worked during the year (figure 1.10). The EU12 has particularly low participation rates in the 55-64-year-old age bracket, but longer annual average working hours. This pattern is repeated in the EU candidate countries, which also suffer from higher unemployment among youth.

Economists believe that people prefer leisure to work if they can afford it. Europeans can afford time off to spend with their families, pursue hobbies, exercise, or simply rest, and most Europeans welcome this.¹¹ But for some, less than full participation in the labor market may be involuntary. Young people and ethnic minorities such as the Roma are often excluded from the labor market, even when they are prepared to work. It is worrisome that several European economies, particularly those in the east and south, feature large informal

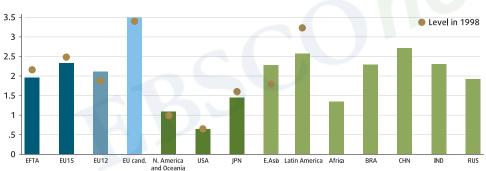


Figure 1.11: Employment protection is higher in Europe

(OECD employment protection index, 2008, and change since 1998)

Note: The index is based on version 2 of the indicator. "EU cand." refers to EU candidate countries and "E. Asia" refers to East Asia Source: OECD Employment Database

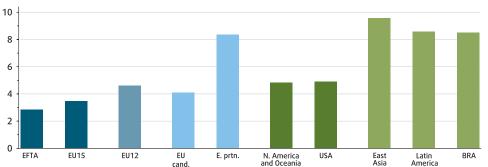


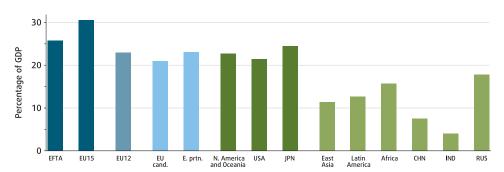
Figure 1.12: Wages in Europe are less differentiated than in other regions

(earnings ratio between top and bottom deciles, 2007-09)

Note: The differential is measured by decile ratios (D9/D1 = wage level of the top 10 percent of workers divided by the level of the bottom 10 percent). "EU cand." refers to EU candidate countries and "E. prtn." refers to EU eastern partnership countries. EU candidates are represented by Albania only. The data for 2001–2006 are used for France, Luxembourg, the Netherlands, and Sweden (EU15), Hungary (EU12), and the Philippines (East Asia). For Albania, the period covered is 1995-2000. Source: ILO 2010a.

Figure 1.13: Social spending is higher in Europe

(government expenditures on education, health, and social protection, 2005–09)



Note: Social spending is a sum of education (707), health (709), and social protection (710) expenditures, as classified in the IMF GFS.

Source: IMF GFS; and IMF WEO.

sectors. Large shadow economies mirror inefficiencies in labor markets—for example, due to high marginal tax rates or rigidities due to labor regulations.¹²

The Organisation for Economic Co-operation and Development (OECD) calculates an employment protection legislation index that includes three dimensions: the protection of individuals against unjustified dismissal, the burden of requirements to justify collective dismissal, and regulations on temporary employment, which is less secure than permanent employment (OECD 1999 and 2004, and Venn 2009). Turkey ranked the highest for employee protection in 2008, while workers in the United States were least protected. Non-EU industrial countries, including Japan, generally have weaker employment protections than EU countries (figure 1.11). Within Europe, there is significant variation in employment protection. In Continental Europe and the south, employment protection legislation is more restrictive than in the north and the east. Although labor market reforms across Europe have narrowed differences in employment protection over the past decade, regional differences are still large and contribute to greater labor market segmentation in the south and the east.¹³

Europeans worry that measures to increase labor force participation will lead to a class of working poor. In fact, according to the OECD, the incidence of low pay in many European countries is much lower than in the United States—the EU15 average is around 15 percent compared with 25 percent in the United States (Japan is closer to the EU15). By the same token, wage incomes in the European Union are considerably more equal than those in the United States (figure 1.12). The ratio of earnings in the ninth to the first decile is less than 2.5 in Scandinavia and below 3.5 in much of Continental Europe, but almost 5 in the United States. The greater flexibility of labor markets is not necessarily inconsistent with maintaining greater wage equality, as the Scandinavian countries show. An assessment of what others can learn from this experience is given in chapters 6 and 7.

Europeans not only enjoy relatively high levels of employment protection, they also benefit from generous health services and support in their old age. Social spending on pensions, health, and education is relatively high in Europe (figure 1.13). In most European countries, pension and health systems are managed by government and financed through mandatory payroll contributions or general

taxes. The rise in pension spending explains the bulk of the increase in the size of governments in Europe, with health-related spending accounting for the remainder.

Several European countries are implementing pension reforms, including increasing the retirement age, reducing early retirement benefits, and reducing replacement rates. In many cases the EU's new members and Eastern European neighbors spearheaded these reforms as they faced the challenge of rapid aging with far lower average incomes and productivity. Nonetheless, replacement rates in Europe tend to be considerably more generous than in other high-income countries, most notably Canada, Japan, and the United States. The comparison with Japan is particularly instructive because Japan is the one high-income country that shares Europe's predicament of a labor force that is rapidly declining in size. In most European countries, pension reform remains unfinished business.

The large role of government in providing basic public services and the generosity of the social security system comes with a higher tax burden. Corporate tax rates decreased over the past two decades, leading to more uniform effective rates in Europe and among all developed countries. Personal income tax rates still vary from other parts of the world and even within Europe, especially when the new EU member states are included. Europe's high payroll taxes and marginal income taxes lead to the largest difference in the world between gross and net wages. One implication of this gap is that the post-tax distribution of earnings is more equal in Europe (figure 1.14). Another implication is that work incentives are weaker.

As a share of their GDP, European countries do not have higher expenditures for health or education than other high-income countries. The role of the government in providing and financing these services, however, tends to be greater in Europe. On average, governments finance three-guarters of all health

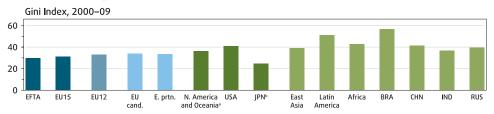
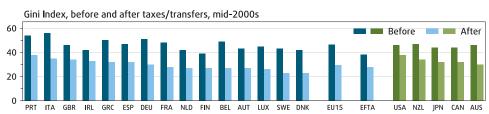


Figure 1.14: Redistribution through the tax and transfer system is more pronounced in Europe

(Gini indices, 2000s)



a. For Australia and New Zealand, the latest available data are from 1994 and 1997, respectively.

b. Japan's data are from 1993.

Note: "EU cand." refers to EU candidate countries and "E. prtn." refers to EU eastern partnership countries

Source: WDI; and OECD Income Distribution and Poverty Database

applicable copyright l

spending in the EU27, but only 60 percent in high-income countries, and as little as 45 percent in the United States. Japan also has a high share of government expenditures in total health spending (81 percent). In education spending, Europe stands apart from the rest of the world. Governments in Europe finance more than four-fifths of total education spending, compared with up to threequarters in a few and half in most OECD countries. In most European countries, primary, secondary, and tertiary education is free, which explains the much larger government role in financing education.

Given the substantial role of government in providing services and social security, government accountability is pivotal. But there is a delicate balance between the accountability desired by most European societies and the moral hazard from the aspirations of a common European project. Europe is a unique experiment in shifting from national to international redistribution and to a deeper political integration than anywhere else in the world.

While it is difficult to discern a clear set of characteristics shared by every European country, a consistent pattern distinguishes Europe's development model.15 Even if there were no such thing as a common European growth model, Europe would face common challenges that set it apart. There are variations in the severity of these challenges among European countries, but they are small relative to the differences with the Americas and Asia. It is these common challenges that motivate a study on restoring the lustre of the European growth model.

The need for change

External and internal developments are putting pressures on Europe—as exhibited in stalling productivity, shrinking workforces, and widening fiscal imbalances. But the remedies lie in three interrelated challenges: making the most of modern services, both financial and nonfinancial; closing productivity gaps, such as the one between the EU15 and the United States, and the growing divergence in productivity growth between Southern Europe and the rest; and dealing with an increasingly serious demographic drag, caused by a combination of aging and shrinking populations in many parts of Europe, including its emerging markets.

Unexploited potential in modern services

In developed economies, about three-quarters of national income is generated in the services sector. Europe's internal trade in services is the largest worldwide at around US\$4 trillion. And yet the Single Market for Services remains fragmented. The most integrated in Europe is the market for financial services, and this has brought ample benefits (chapter 3). But even here, coordination among national regulators to oversee the activities of financial institutions operating across national borders may have been exposed as deficient during the recent crisis. The uncoordinated deleveraging of bank balance sheets in Europe's emerging markets as a result of capital calls by national regulators could impose significant collateral damage on host countries' economies. This would exacerbate downward economic pressures across

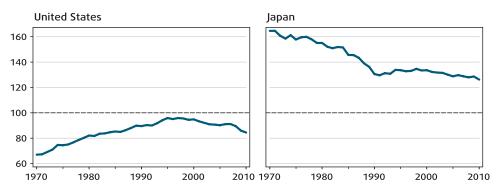


Figure 1.15: Europe's productivity leaders are lagging behind the United States

(EU15 labor productivity, indexed to the United States and Japan)

Note: The chart shows productivity levels in the core EU15 rather than the wider EU27. The EU's new members (EU12) have been converging to the United States but are too small to fundamentally affect the picture for Europe as a whole. Note also the declining gap with Japan even during the recent decades, when Japan grew slowly. Once demographic "drag" is subtracted, labor productivity growth in Japan compares well with Europe and is on a par with the United States between 1995 and 2005. Source: World Bank staff calculations, based on the OECD Productivity Database.

the continent. To avoid costly disintegration, further regulatory integration is called for.

In other services, regulatory barriers prevent the benefits of trade and integration from being fully realized (chapter 2). Digital services, such as Internet sales and IT support, are far less developed in Europe. For example, the United States accounts for around 80 percent of global e-book sales, but Europe for only 10 percent, mostly in the United Kingdom. The online music storage and sharing service Spotify is available in only 7 European countries, and iTunes is accessible in only 15 states. National regulations make it difficult for companies to operate Europe-wide, preventing efficiency and cost gains from being realized. After years of negotiations, Europe still does not have a single European patent, which increases the cost to innovators. Telecom services, biotechnologies, and pharmaceuticals are nationally regulated, leading to significant price divergence across Europe and reduced incentives for business to invest in R&D. In professional services, the mutual recognition of qualifications remains incomplete, while contract law and professional liability and insurance requirements differ and create risks for cross-border sales, particularly by small and medium enterprises.

The regulatory barriers hampering the development of services trade across Europe are economically significant. Some estimates put the gains from strengthening the Single Market for Services at 4 percent of the EU's aggregate GDP (Monti 2010). About 70 percent of the productivity gap with the United States in the "old" members of the European Union is in the productivity of services (Roxburgh and others 2010). Lower productivity growth in distribution (retail, wholesale, transport, and logistics) accounts for a large share of Europe's divergence in productivity from the United States and Japan since the mid-1990s (Jorgenson and Timmer 2011). Europe lags the United States in highly innovative industries such as biotech, the Internet, and medical services (chapter 5). Europe

has gotten less out of the information technology revolution and risks missing out on biotech, the next important wave of business opportunities in the "New Economy."

Widening productivity gaps

Growth in labor productivity in Europe's advanced economies has fallen behind that in the United States (figure 1.15). This growing gap with the world's technology leader is in sharp contrast with the rapid convergence in labor productivity Europe experienced in the five decades after World War II. It prompted several European policy initiatives, starting with the Lisbon

Figure 1.16: Southern Europe lags the EU15 North, and Eastern Europe is catching up to it

(EU15 South labor productivity, indexed to EU15 North and EU12)

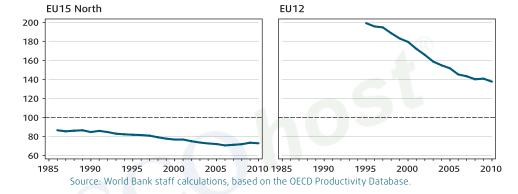
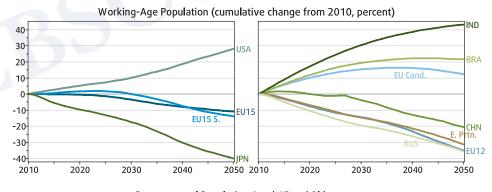
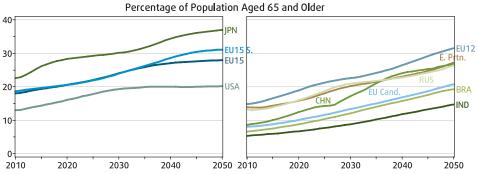


Figure 1.17: Europe's population could shrink by a third over the next 40 years

(population projections, 2010–50)





Note: "EU15 S." refers to countries in EU15 South, which are also included in the EU15 aggregates. "EU cand." refers to EU candidate countries and "E. prtn." refers to EU eastern partnership countries. Source: World Bank staff calculations, based on U.S. Census Bureau International Data Base.

The growing gap with the United States is not the only productivity gap Europe needs to worry about. Within Europe, labor productivity growth until the mid-1990s tended to be faster in the relatively poorer countries. But over the past decade, the pattern has become more complex. While the new member states of the European Union in Central and Eastern Europe have grown fast and made good progress in closing the large initial productivity gap with the EU15, among the "old" members of the EU, productivity has diverged since the end of the 1990s (figure 1.16). In particular, productivity growth in Europe's southern economies—Greece, Italy, Portugal, and Spain—has been slower than in Europe's north. These trends worsened in the five years leading up to the economic and financial crisis of 2007–08. But incomes have not matched labor productivity. The result has been a sharp divergence in unit labor costs within the eurozone and a corresponding increase in internal imbalances among its member states.

Growing "Demographic Drag"

Over the next 50 years, with current policies, Europe's labor force will decline by 50 million, with the largest part of the decrease happening between 2020 and 2040. The numbers are quite daunting, because there will be changes at both ends of the population pyramid. Due to low fertility rates, the labor force will decline by around 15 percent in the EU15 and by more than 30 percent in the EU12 and the EU eastern partnership countries, but it is likely to increase by 15 percent in the potential candidate countries. At the same time, the share of



Note: "EU cand." refers to EU candidate countries and "E. prtn." refers to EU eastern partnership countries.

Source: IMF WEO; European Commission's annual macro-economic database (AMECO); and Abbas and others 2011

Figure 1.18: European governments are the biggest in the world, and often heavily indebted

(government balance, government spending and public debt, percentage of GDP, 1970–2010) European ages 65 and older is projected to increase from less than 20 percent today to around 30 percent by 2050 (figure 1.17).

This contrasts markedly with predicted developments in the United States, India, and emerging markets in Latin America and North Africa. Although China and Japan also face a declining labor force, there are vast opportunities in China for productivity gains from capital deepening and from the structural transformation of the economy. Japan is most comparable with Europe in its demographic patterns, but it has managed the fiscal implications of aging more prudently and has sustained higher rates of productivity growth than Europe. Europe will need to boost labor force participation and adjust its institutions to cope with the need for greater immigration if it is to achieve sustainable GDP growth (chapter 6).

Demographic changes are straining Europe's welfare systems. European countries have larger governments than countries in other regions, regardless of per capita income level (figure 1.18). The differential is about 10 percent of GDP, and the main reason is that European governments spend more on social security, mostly on pensions (chapter 7). This is not because European societies are already much older than others at similar income levels. Rather, Europe has more pensioners because workers retire earlier. Europe's social spending is large, though the continent is still relatively young. As Europeans live longer and populations age, this will need to change.

The burden of implicit pension liabilities has been recognized for some time. Until recently, however, the large size of Europe's governments and the increasing levels of public debt did not attract much attention. This has changed in the wake of the crisis, as European governments struggle to convince investors that they can and will redeem their debts. The need for fiscal adjustments and debt reduction is now widely acknowledged. How to do this in a socially balanced way is perhaps the key challenge facing European policymakers over the coming decade. How to sequence and coordinate the adjustment in the context of large internal imbalances within Europe and the looming risk of a renewed recession is a key challenge over the coming months.¹⁶

An underdeveloped services market, a persistent gap to the world's productivity frontier, an aging society, and the immediate need for fiscal adjustment—together these conditions make economic growth the greatest imperative for Europe. The issue is not just higher material output. Intergenerational equity, sustainability, and global relevance are also at issue. Only a growing Europe will be able to maintain its attractive blend of ever-better living standards, individual rights and social security, and regional solidarity.

Mending the model

It is understandable that given half a century of success, many Europeans are inclined to preserve and defend their economic model rather than change and adapt. But it is clear that changes are necessary. Changes are needed for the European single market to deepen, for Europe to become an even bigger economic union, and for Europe to retain or regain its global economic leadership.

The rest of this chapter introduces the key policy debates that frame the case for changing the various components of the growth model. The policy debates concern all of Europe, but the implications are often quite different across countries. Some parts of the model will require less adjustment than others. The structure of this report reflects these differences. A few salient points:

- The structure of this report mirrors its main messages. Trade and finance come first: they are the parts of the economic model that are the strongest and—except for the single market for some services—require the least change. Enterprise and innovation come second: they work well in some parts of Europe and poorly in others. Some countries need to change their policies just a little, others a lot. Labor and government come next: they require the most change in many countries.
- The organization of the chapters also reflects their geographic focus. The debates about enlargement are best informed by discussing the experience of emerging Europe—the new member states of the European Union, the EU candidate countries in the Balkans, and the EU eastern partnership countries. The discussions of trade and finance emphasize the economic relations between emerging Europe and the advanced EU15 economies. The debates about European competitiveness are centered on the European Union, with growing concerns about the competitiveness of enterprise in the southern states and weaknesses in the innovation fundamentals of the European Union. The discussion of enterprise and innovation is focused on the 31 countries in the European Union and European Free Trade Association. The debates about labor and government span all 45 countries in Europe: the European Free Trade Association, the European Union, the EU candidate states, and the EU eastern partnership countries.
- This report tries to provide answers to the questions that are most pertinent for policymakers. The number of questions in each chapter increases as the report progresses from the strong points of the European economic model to its weaker aspects. But the debates addressed in chapters 2-7 span questions related to three of Europe's biggest assets: the single market, the consensus for economic enlargement, and Europe's global economic importance. Highlighting the priorities, chapter 8 notes countries in and outside Europe whose performance can be used as a benchmark by others.

Trade: taking advantage of enlargement

There are many who question whether enlarging the European Union to the east has benefited Europe's "old" member states, especially the ones in the south; there is not much debate about whether the new members have benefited—they clearly have. A corollary of this concern is skepticism about the benefits to current members of the European Union from further enlargement to include the western Balkans, Turkey, and Europe's eastern neighbors. especially Belarus, Moldova, and Ukraine.

The fears about trade integration with the east are centered on the relocation of production facilities to benefit from a qualified but cheaper labor force. The argument is often made that this leads to a loss of jobs in the west-that competition has harmed economies in "old" Europe. This report documents

the spread of industrial networks as a result of EU enlargement and shows how the EU's old members have indeed been increasingly offshoring activities to the newer ones. This has helped companies in Western Europe—in Austria, Germany, and others—become or stay competitive. Western Europe's most successful economies have increasingly relied on suppliers in the east. And the new member states have been given increasingly sophisticated tasks in the process, which has turned them into global exporters in their own right.

The same phenomena can be observed with a lag in the western Balkans and Turkey, where trade in industrial intermediates is catalyzing changes in the structure of exports. The conclusion of deep and comprehensive free trade agreements with the eastern neighbors would likely bring many of the benefits that the customs union, concluded in 1995 between the European Union and Turkey, has brought to Europe's second most populous country.

But while enlargement has been a success for most, Europe's southern economies have missed out on the benefits of deepening integration. FDI that used to go southward has increasingly headed east. Neither has the south substantially increased its trade linkages with the new member states or the accession countries, with the notable exception of Greek and Italian banks expanding into the western Balkans. Enterprises in Greece, Italy, Portugal, and—to less extent—Spain tend to be too small to internationalize. The family business model needs updating as the European family grows ever bigger.

If trade in manufacturing has been a motor of European integration, trade in services is less developed and more regulated in Europe, even inside the European Union. Services trade has grown significantly, as has the sophistication of services exports of both old and new EU member states. But services trade in the European Union is estimated to be only about half what it could be if the Single Market for Services were fully developed. Moreover, services trade in non-EU members is less impressive and remains primarily for traditional services, pointing to sizable gains from further liberalization of trade in services with non-EU members. Tapping this potential requires strengthening the capacity of EU candidate countries to adhere to European regulations in areas such as intellectual property rights and financial services. It will also require the European Union to accept the greater labor mobility required for trade in traditional services such as construction, transportation, and tourism.

Europe's global trade relations are characterized by the increasing proliferation of bilateral trade deals, custom-made for the particular sensitivities involved. For Europe, agriculture remains a policy area dominated more by politics than economics. The weakest part of Europe's approach to trade is the high protection afforded by the Common Agricultural Policy, which distorts farming decisions and—unlike the rest of the components of the European economic model—helps neither poorer farmers nor poorer countries. (See chapter 2 for an argument that Europe would do well to reconsider its agricultural trade policies toward the economies of the EU eastern partnership, where many people are still farmers.)

Trade is one of Europe's strong points. European integration is a unique political and economic achievement, and enlargement represents opportunities for both

Finance: managing quick capital flows

Banks and financiers are not popular these days. There are questions about whether financial integration in Europe has gone too far. This report argues that financial integration has been at the core of one of Europe's biggest achievements—the rapid convergence of incomes and living standards across the continent. These flows should not be slowed; Europe should just get better at managing them.

Critics of financial integration in Europe point to the risk that excessive debt levels may slow down growth in the future, because new credit is not available while banks reduce exposure to repair their balance sheets. Easy finance may have obscured structural weaknesses of economies and enterprises and led to a misallocation and waste of capital at the cost of European taxpayers, who now have to bail out the banks. And critics point to the shortcomings of Europe's financial and regulatory architecture, with financial institutions that operate freely across borders while remaining under the supervision of national authorities.

The criticism points to areas that need fixing. But this report argues that on the whole, finance has been a boon to Europe despite some excesses. In supporting this conclusion, the report distinguishes between the emerging markets in Eastern Europe and the countries that joined the European Union during the 1970s and 1980s—the erstwhile "cohesion countries"—Ireland, Greece, Portugal, and Spain. The private sector credit boom in emerging Europe has not created a debt overhang. Corporate and household balance sheets are not excessively leveraged. and credit has gone to stronger companies and wealthier households. By and large, finance has helped real convergence in Eastern Europe. Going forward, while commercial banks struggle with a large share of nonperforming loans, and credit growth may be subdued for some time, exchange rate flexibility in countries such as the Czech Republic or Poland and the political will to carry through an internal devaluation in places like the three Baltic states should mitigate the risks of a credit-less recovery.¹⁷ By contrast, debt levels in the cohesion countries are near or above the thresholds of sustainability and growth-friendliness. The debt overhang compounds the challenge of restoring competitiveness and growth, without which in turn debt sustainability is questionable. External borrowing in Europe's south has typically gone hand in hand with a decline in domestic private savings. Except Ireland, where productivity growth was high throughout the boom, finance in the cohesion countries has not promoted real convergence but instead has fueled the convergence of nominal incomes. Europe's underlying productivity gap between north and south, more than its financial system, needs fixing.

A peculiar feature of financial integration in Europe (both within the European Union and in some EU eastern partnership countries, such as Ukraine) is the predominance of financial FDI, most obviously manifest as foreign banks in emerging Europe. This has made financial flows more durable during the crisis, with rollover rates close to 100 percent compared with 60–65 percent during the East Asia crisis of 1997–98. This success was in part achieved thanks to

spontaneous coordination among home and host regulators, banks themselves, and international financial institutions under the so-called "Vienna Initiative." As the sovereign debt crisis in Europe has put renewed pressure on European banks, however, Europe needs to consider moving beyond coordination toward building a Europe-wide regulatory architecture that provides enforcement powers to supranational institutions such as the European Banking Authority. Managing quick capital flows successfully is likely to require national regulators to transfer some authority to the European level.

At the national level, countercyclical fiscal policy and macroprudential financial sector regulations would have helped economies in emerging Europe get the best out of western finance. A lesson of the crisis is the need for European policymakers to act more forcefully to cool excessive domestic demand. There is a moral in the coincidence of the success of financial integration and an improved investment climate: where domestic competition was weak, finance flowed into real estate and retail lending in the absence of a sufficient supply of creditworthy corporate borrowers. Financial integration can catalyze real economic integration when the right structural policies are in place—but it cannot substitute for them. In the meantime, the macroprudential architecture in Europe has also been strengthened in the course of the crisis, with the creation of the European Systemic Risk Board. Whether this is sufficient to prevent future excesses can be debated. Market signals in the course of 2011 were clear: yields came down for sovereigns in countries like Ireland and Latvia where macroeconomic policies have sharply unwound the excesses of the past; they did not where measures remained halfhearted or where political commitment to stay the course of adjustment was in doubt.

The comparison of south and east provides lessons in how financial integration can foster convergence when managed well, and how it can destabilize all of Europe when the capital flows into unproductive activities. But this report concludes that closer financial integration between wealthier and less advanced economies in Europe is unique, and a strength of the European economic model.

Enterprise: making structures better suited for an enlarged Europe

Advocates of free, unregulated markets point to Europe's modest growth performance over the past two decades, compared with those of the United States and East Asia, as an example of the stifling effects of excessive regulation. While the attempted regulatory harmonization in the 120,000 pages of the *Acquis Communitaire* is an admirable ambition, Europe is not considered an easy place to do business. Unless this changes, it is argued, Europe's growth prospects look dim.

In reality, there is considerable variation in the extent of government regulation of private enterprise across Europe. Regulation remains pervasive despite a decade-long process of gradual liberalization in the south and some Continental European countries, but is now lighter in the north and in some new EU members in the east. This report examines how these differences lead to differences in the health of Europe's economies, taking a microeconomic

approach to the assessment of enterprise performance. In particular, it examines how enterprises have done in achieving three objectives: adding value, creating jobs, and increasing exports.

European enterprises do not do worse than their competitors in the United States and East Asia in these three dimensions. There are, however, big differences across Europe that result from how countries regulate enterprise. In the European Union, the north exceeds the performance of the United States in all three dimensions, Continental Europe does well in exports but less so in value added and employment growth, and the south has added jobs, but not value and exports. Productivity growth within the EU15 has begun to diverge in recent years. By contrast with the south, the EU's eastern members and neighbors have done well in increasing productivity and exports, but less in creating jobs.

The differences in the business environment and the performance of enterprises are linked. Cumbersome regulations, high tax rates, compliance costs, and weaknesses in contract enforcement keep enterprises small in the south. Smaller firms often stay below the radar screen of inspectors or benefit from simplified requirements. Staying small often means staying nimble and limiting risks. But smaller firms are also less attractive for foreign investors and face significant risks themselves in trading and investing internationally. And smaller firms can ill afford the wages demanded by a highly educated workforce. These are all reasons why the south has experienced slower productivity and export growth than other regions in Europe, and they explain how fast job creation has coexisted with significant youth unemployment, often of university graduates.

By contrast, enterprises in the north and in Europe's continental economies have faced fewer obstacles in growing bigger. They have internationalized and have been able to attract and retain skilled labor. They have done so although regulations and taxes in Northern and Continental Europe remain more burdensome than in other high-income OECD countries. But compliance costs have been reduced, and predictability and evenhanded enforcement have helped firms adjust. The recent success of enterprises in countries such as Finland, Germany, and Sweden indicates that the European economic and social model is not incompatible with competitive enterprise.

In the east, deregulation and simplified tax systems have helped attract FDI from Estonia to Georgia. Good infrastructure, as in the Czech Republic, and a large domestic market, such as in Poland, have also helped. By internationalizing and becoming part of Austrian, German, and Swedish multinational production chains, Eastern European enterprises have benefited from enlargement and have been rewarded with gains in productivity and world record export performance.

Innovation: improving the structures that bring ideas to market

Researchers who are worried that European enterprises are becoming less competitive relative to North American and East Asian firms point to Europe's

weaker innovation fundamentals: competition, universities, and R&D funding. Policymakers in Europe have been focused on innovation for several years as reflected, for instance, in the Lisbon Strategy of 2002. This set a target for Europe to reach a level of R&D spending of at least 3 percent of GDP. Today, Europe as a whole remains quite distant from this objective and also lags the United States, the world's innovation leader, in a number of aspects related to innovation. This report assesses what the main components of a European "innovation ecosystem" might be.

A composite indicator developed by the European Union covers public and private R&D investments, the quality of universities, linkages between research and business, access to finance, protection of intellectual property rights, and access to a large market. The measure highlights the innovation gap between Europe and the United States. Among Europe's major competitors (the United States, Japan, Brazil, Russia, India, and China), only Russia is falling behind in relative terms. The United States and Japan score better than the European Union and are widening the gap.

Close up, the picture looks different. Switzerland, Sweden, Denmark, Finland, and Germany perform close to U.S. levels, but much of Southern and Eastern Europe lags well behind. The poor performance of some advanced European countries such as Italy, Spain, and—to less extent—France in various dimensions of innovation is of particular concern. Poorer economies can often grow fast even without much innovation by adopting frontier technologies. Europe's own history up to the mid-1970s, and East Asia's "flying geese" pattern of structural change and technological advance, are examples of catch-up growth. But closer to the technological frontier, institutions have to change to promote innovation. Studies suggest that competition, the quality of tertiary education, and the availability of venture capital finance are the main ingredients of success at the frontier (for example, Aghion and Howitt 2006). Europe as a whole lags the United States in these dimensions, and Europe's low-innovation economies lag behind its leaders in every one of them.

One sign of Europe's innovation gap is that it has too few young, leading innovators—firms that have grown quickly to become large. Young firms form the majority of leading innovators in the United States, and a substantial share of R&D in leading sectors. Europe does not specialize in R&D-intensive sectors such as aerospace, biotech, information technology, health care, pharmaceuticals, and telecommunications. Even in countries with strong national innovation systems such as Germany or Sweden, there are few young, fast-growing companies, and innovation-based sectors are poorly represented. Europe, like Japan, carries out the bulk of its R&D in traditional, old firms. While this works for some—such as the well-known "export champions" like ABB, Erikson, BMW, Mercedes Benz, BASF, or Siemens—Europe has few companies that match the dynamism of Apple, Amazon, Google, Facebook, or Microsoft. This report links this back to the fragmentation in the single market for digital services, which makes it more difficult for young innovators in Europe to grow to global scale.

Europe did not get the same productivity kick as the United States out of the wave of improvements in information communications and technology over the

last decade and a half. It will have to harness the power of the single market to do better when the next technological revolution comes along.

Labor: getting more from work

Europeans sometimes fear that Europe is running out of work. But it is workers that Europe is running out of. Addressing this misconception may be one of the most important tasks for European policymakers.

Labor markets have long been recognized as one of Europe's weaker points. Persistent unemployment during the 1980s and 1990s was perhaps the most widely discussed aspect of what some called "Eurosclerosis"—the inability of Europe's postwar institutions to adjust to a changing global economy (Giersch 1985). Motivated in part by the view that work in Europe was a pie of fixed size, policymakers made it easier for Europeans to retire earlier and to work fewer hours. Workers in Europe have responded to these incentives, not least because they enjoy social security. The generosity of social welfare and the high degree of protection afforded to workers in Europe are a distinguishing characteristic of the European economic and social model, setting the continent apart from other high-income economies.

This report assesses the costs of this generosity, highlighting inconsistencies in the way work and welfare are organized in Europe. As part of financing generous social benefits, the burden of payroll taxes has grown while the workforce that pays these taxes has declined. The laws make workers, once hired, feel secure. The same laws make employers think twice before hiring. High taxes and burdensome employment protection rules discourage job creation with the consequence that some Europeans—often the young—remain excluded from the labor market. Europe's policies regulating work can be linked to the inefficiencies in the labor market, which in turn contribute to a loss of competitiveness and reduced ability of enterprises to innovate.

The strains in Europe's insider-outsider labor market have grown since economists first pointed out its inefficiencies in the 1980s. Youth unemployment rates of 40 percent such as in Spain are hardly compatible with the objective of social inclusion. At the same time, many Europeans fear that with globalization and European enlargement, their jobs are competed away through outsourcing and immigration. When the amount of work available is seen as a fixed pie, the inclination is to limit the number of eaters. The tension between insiders and outsiders has correspondingly grown.

It need not be like this. Compared with the 1970s and 1980s, Europe has become better at creating jobs. Excluding some from the labor market is an anachronism in a continent facing a rapid decline in its labor force over the coming decades. If current patterns persist, Europe will have 30 million fewer young workers (ages 19-39) by 2060. Europe's youth have to be brought into the economic mainstream. And even then, shortages of skilled labor remain likely.

Encouragingly, a growing number of European countries have been changing their labor market policies. It will be reassuring for many Europeans that labor markets in Denmark and Germany have succeeded in combining high levels of income security for workers with stronger incentives to look for new

opportunities, and with measures to lower the payroll tax and thus encourage employers to create jobs. It should also be reassuring that governments in Northern Europe have been successful in matching younger workers and jobs, though such policies are difficult to get right and can be expensive.

Some parts of Europe are poised to do a lot better than others when it emerges from the current economic turbulence. These differences in prospects have consequences for workers. Europe's single market is premised on the aspiration that labor can move freely in response to economic opportunities. In reality, Europeans move little both inside countries and across national borders. High regional unemployment rates motivate costly regional development policies that attempt to bring jobs to people, rather than encourage people to move to where the jobs are. Low levels of mobility are associated with high unemployment.

Language barriers, family ties, and attachment to local culture make Europeans reluctant to move, yet these are not unique to Europe. Younger, educated, and ambitious Europeans would benefit from stronger signals from the labor market, better-functioning housing markets, and more easily portable health and social protection benefits. In Europe's economic powerhouses like Germany, enterprises are often short of skilled labor. In Spain and Italy, many university graduates are struggling to enter the labor market. Europe as a whole will benefit from higher labor mobility.¹8 Indeed, for countries that share a single currency, labor mobility may be the most important missing ingredient—one that could help make the eurozone an "optimum currency area."

Europe will also have to learn to compete for global talent. Europe offers much in the way of cultural richness and economic opportunity, yet talent from around the world is more likely to go to the United States because of better universities, more-accommodating labor markets, and institutions that are more welcoming (The Economist 2009). Europe has much to change in its approach to immigration.

Government: making a representative state more efficient

Seen from Asia or America, Europe is a region with big government. For many, big government is associated with bloated bureaucracies, high taxes, and wasteful government spending. Little wonder, it is said, that European economies have trouble growing. The recent financial turbulence in Europe, prompted by concerns over large public debts and persistent fiscal deficits, has added weight to the arguments of those skeptical of large government.

This report asks whether large governments are indeed harmful for growth. In Europe, this seems to be the case; countries with larger governments grow more slowly. And in Europe, governments are larger. This is primarily because of higher spending on social protection—most important, public pension systems. Population aging lies behind growing social security spending in all high-income and many middle-income countries, but the impact is highly variable.

Rethinking the design and size of social security systems in Europe can draw on existing good practice, such as in Iceland or Japan, to deal with the

Security or risk growing fiscal challenges.

There are economies in Europe with large governments that do well. Sweden, for instance, hardly fits the stereotype of a rigid, bureaucratized Leviathan, though government spending in 2010 was more than half of GDP. One reason that Scandinavian countries with large governments do so well is that public services are of high quality. This report considers their reforms to draw lessons for the rest of Europe and the world. But one asset that Northern European countries have that may be tough to replicate is a higher degree of social trust. Where the rule of law is weak and social trust is low, large government is likely to be harmful. So Southern Europe might have done better to keep government small, since it is difficult to make it efficient without the preconditions for compliance with taxes and regulations, high levels of work participation, and frugal use of social welfare. This is a lesson that emerging market economies in

Whether or not large government is bad for growth and fiscal austerity is seen as harming the short-term prospects of growth in Europe, for countries with large public debts fiscal consolidation is a necessity. Neither higher taxes nor productivity increases are likely to keep the public finances of these countries afloat at current spending levels. High-quality fiscal consolidation strategies to reach sustainable paths for public debt are analyzed in chapter 7. There is ample room in Europe to cut spending without affecting social outcomes. Nonetheless, the political challenge of maintaining primary surpluses for several years is daunting. Some countries have room to adjust more gradually than others. And given the close economic links between European countries, those with fiscal space could perhaps use it.

Europe with large public sectors, such as Ukraine's, should learn.

Restoring Europe's lustre

In November 2008, as the consequences of the financial collapse gripped markets and policymakers worldwide, a senior U.S. government official remarked: "You never want to let a serious crisis go to waste." It is not clear whether the United States has used the crisis well. But three years later, the epicenter of economic turbulence lay not there but in Europe. The attention was focused on restoring the confidence of markets in European governments. But behind the market nervousness were doubts about the sustainability of Europe's economic and social model. The European sovereign debt crisis could be seen as an opportunity to address these concerns quickly.

This report was written with more deliberate adjustments in mind. That will indeed be the course of reform in the many countries that have responsibly applied the principles of the European growth model. But the countries that have strayed furthest from them will be forced to adjust abruptly. It should be a warning to the others. There have been changes in the world that necessitate a reexamination of the basic economic model. Since 2005, the contribution of developing countries to global growth has been greater than that of advanced economies, even though their share in global GDP is half that of the developed world. All advanced economies should reflect upon these shifts.

This report is such a reflection for 45 countries in Europe. An unprecedented combination of enterprise, labor, trade, finance, innovation, and government attributes makes the European growth model unique. The close economic ties between richer and poorer countries; the balance between profit and public interest in enterprise; the social contract that protects the poor, elderly, and unemployed; and the representativeness of government at continental, national, and local levels are unique and admirable. Europeans cherish these features and much of the world admires and tries to emulate them. This report concludes that the European economic model needs to be adjusted, not abandoned.

The changes that have made it necessary for Europe to craft a new economic model are demographic, entrepreneurial, and fiscal. Europe's working population is expected to decline by about 15 percent by 2050, while that of the United States will grow by more than 25 percent. Asia's productivity and competitiveness will allow its enterprises to outstrip all but the most innovative ones in the United States. It will especially pressure Europe, where productivity growth has been slowing since the mid-1990s and the service economy has been held back by fragmented regulation. The growing costs of social security and slowing economic productivity will squeeze Europe from two sides in the coming decade. The pressures may rise quickly. Debt burdens that seemed manageable at the borrowing costs of 2008 may be unbearable in the market conditions of 2012. Europe needs to change.

The order of chapters in this report reflects the changes required in ascending order. Europe's strong points are in trade and finance. In the areas of enterprise and innovation, Europe has countries that do well in the world. But many European countries are struggling to generate and support entrepreneurial high achievers and innovators. The biggest need for change is in the areas of labor and government. Labor policies must be reoriented toward greater labor mobility, incentives to work, and more competitiveness and job creation in sectors where Europe lags behind. Almost everywhere, European governments are too big and inefficient in delivering services. They will have to become smaller or more efficient, whichever is quicker. Their weaknesses and strengths are summarized in table 1.1.

The necessary changes will not be easy, but many European countries have already made progress, and others can learn from their experiences. Other parts of the world are dealing, or have dealt with, similar pressures, and Europe may learn from them too. Using more than 16 pairs of benchmarking briefs prepared for this report, chapter 8 provides accounts of successful experiences.

Table 1.1: Strengths and shortcomings of Europe's growth model

Strengths **Shortcomings**

Trade

Highest share of trade in GDP of all regions in the world. Lowest barriers to trade in goods.

Growing size and sophistication of production networks connecting emerging and advanced Europe.

High degree of trade integration in traditional services.

Fastest convergence in incomes and living standards in the world.

Single Market for Services remains incomplete. Common Agricultural Policy reduces the benefits of trade integration for Europe's eastern neighbors.

Finance

Capital flows downhill from countries with high incomes and low growth rates to countries with low incomes and high growth rates. Financial foreign direct investment has brought western know-how and finance to emerging Europe.

Dependence on western banks to date has mitigated the effect of the crisis on emerging Europe.

Boom-time excesses point to the need to ensure crisis-proof financial integration and strengthen supranational regulation.

Cheap finance made Southern and Eastern Europe complacent about external imbalances.

Enterprise

Business bears more responsibility for social and environmental consequences of its activities than in any other part of the world.

European enterprises have-by and large-generated employment, productivity, and exports.

Variations in business regulation across Europe do not confirm a "race to the bottom."

Countries with more onerous business regulations have lagged in productivity growth and exports.

Growing gap in economic competitiveness between the southern states and the rest is a source of instability in the eurozone.

European production has become greener but not its consumption.

Innovation

Some European countries figure among the top global innovators and exporters. Established tradition of strong public support to universities and R&D institutes. Europe has a proud tradition of innovation in engineering, pharmaceuticals, and clean

energy that could be harnessed for future

Europe's private R&D spending is much less than in U.S. and Asia's developed economies. Linkages between research institutes and business are weak because of overdependence on public funding.

Europe is not specialized in fast-growing high-technology sectors such as ICT and biotech. Europe has fewer leading innovating companies and few top universities globally. Bank-dominated finance is ill suited for innovation.

innovation.

Greater post-tax earnings equality. Strong income protection and unemployment insurance systems. Good aggregate job creation performance over past decade.

Labor participation rates below those in U.S. and East Asian advanced economies.

Rapid aging will result in workforce falling by a sixth over the next 50 years. Generous eligibility raises concerns over the sustainability of social security.

Large informal sectors in some European countries and high youth unemployment point to problems of labor market exclusion.

Low labor mobility despite formally free movement of labor within Europe. Unfriendly immigration policies may keep global talent away.

Government

Most representative and decentralized of all regions. Broad coverage of public services and social security. Low post-tax income inequality.

Government size is 10 percent of GDP greater than in other parts of the world, and public spending to GDP has risen by about 5 percentage points during the crisis.

Pension burdens are high for a relatively young (but quickly aging) region.

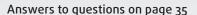
Generosity of social welfare programs weakens incentives to work.

High marginal tax rates promote evasion and make Europe less attractive for enterprises and skilled workers.

Variation in quality of public services unrelated to government spending. Unsustainable public debt in some countries, fiscal imbalances in many.

To sustain its success in the twenty-first century, Europe will need to draw on the strength of its integrating institutions, especially the Single Market for Services. It will need to stimulate greater competition to push laggard enterprises to catch up with Europe's best, and to free Europe's high achievers to innovate and grow. It will need to reorganize work and government to deal with the imperatives of regional integration and global competition, while maintaining domestic cohesion. This will require greater flexibility and mobility of labor, efficient management of capital mobility, and a new balance between economic freedom and social security.

All this is hard work. But the policymakers who address these imperatives will create a growing Europe. It will be a Europe that keeps its way of life and its place in the world, that radiates hope and again becomes an inspiration for others. It will be a Europe that has restored its lustre.



- ➤ The principal components of Europe's growth model—trade, finance, enterprise, innovation, labor, and government—are organized in unique ways.
- Sluggish productivity growth, a declining workforce, and growing fiscal imbalances have revealed weaknesses of the European economic model, and the entry of a billion Asian workers into the global market is adding to the stress.
- Many changes are needed in how governments and labor markets are organized. Fewer changes are needed to foster innovation, productivity growth, and job creation by enterprises, and fewer still to improve finance and trade in Europe.

Chapter 1: Annexes

Annex 1.1: List of countries and regions

EU15		EU candidate states		Latin America (LAC)	
Austria	AUT	Albania	ALB	Argentina	ARG
Belgium	BEL	Bosnia and Herzegovina	BIH	Brazil	BRA
Denmark	DNK	Croatia	HRV	Chile	CHL
Finland	FIN	Kosovo	KSV	Colombia	COL
France	FRA	Macedonia, FYR	MKD	Mexico	MEX
Germany	DEU	Montenegro	MNE	Peru	PER
Greece	GRC	Serbia	SRB	Uruguay	URY
Ireland	IRL	Turkey	TUR	Venezuela, RB	VEN
Italy	ITA				
Luxembourg	LUX	Eastern partnership states		North America and Oceania	
Netherlands	NLD	Armenia	ARM	Australia	AUS
Portugal	PRT	Azerbaijan	AZE	Canada	CAN
Spain	ESP	Belarus	BLR	New Zealand	NZL
Sweden	SWE	Georgia	GEO	United States	USA
United Kingdom	GBR	Moldova	MDA		
		Ukraine	UKR	Africa	
EU15 southern states				Algeria	DZA
Greece	GRC	European Free Trade Associat	ion	Egypt, Arab Rep.	EGY
Italy	ITA	Iceland	ISL	Могоссо	MAR
Portugal	PRT	Liechtenstein	LIE	South Africa	ZAF
Spain	ESP	Norway	NOR	Tunisia	TUN
		Switzerland	CHE		
EU12				Other	
Bulgaria	BGR	East Asia		India	IND
Сургиѕ	CYP	China	CHN	Russian Federation	RUS
Czech Republic	CZE	Indonesia	IDN		
Estonia	EST	Japan	JPN		
Hungary	HUN	Korea, Rep.	KOR		
Latvia	LVA	Malaysia	MYS		
Lithuania	LTU	Philippines	PHL		
Malta	MLT	Singapore	SGP		
Poland	POL	Taiwan, China	TWN		
Romania	ROM	Thailand	THA		
Slovak Republic	SVK	Vietnam	VNM		
Slovenia	SVN				

7

Notes

- 1 In 2004, around 50 percent of EU15 citizens supported the accession of additional members to the European Union. In 2008, 47 percent of citizens in the EU27 supported the accession of additional members, but support in all new member states except Latvia was above 60 percent, whereas the four biggest EU15 countries all had support levels of about 40 percent or less.
- According to Eurobarometer, it has fallen from 66 percent in 2004 to just 52 percent in 2008.
- Specifically, this report distinguishes between the EU15 (often called the "old member states") and the EU12 (the new members) and within these groups between subgroups of "Northern," "Continental" or "Central," and "Southern" European countries. Among the EU's neighbors, the report distinguishes countries that are advanced economies (the European Free Trade Association members: Iceland, Liechtenstein, Norway, and Switzerland) and those that are emerging markets. The report also distinguishes between candidates for future membership in the European Union (Turkey and the western Balkans) and countries that are part of the EU eastern partnership (Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine).
- 4 See annex 1.1 for a list of country abbreviations.
- 5 By far the largest capital flows, a substantial share of which in official transfers, occurred between East and West Germany. But this is a special case of integration and convergence within one nation with little relevance for regional integration experiences, perhaps except for the Democratic People's Republic of Korea and the Republic of Korea.
- 6 The lack of convergence globally is not what economists would expect. Neoclassical models of economic growth predict income convergence across countries. In Solow (1956), the long-run growth rates of per capita income are purely driven by technical progress, while the level of per capita income is determined by the "steady state" savings rate. Allowing for differences in savings rates across countries, one obtains the less demanding prediction of conditional convergence, which holds across a large range of countries (for example, see Mankiw, Romer, and Weil 1992). Europe has seen unconditional convergence.
 - Europe uniquely has also experienced faster convergence in consumption than

- in income. This to some extent reflects nonsustainable borrowing for consumption purposes, predicated on the assumption of almost "automatic" income convergence in Europe. As the experience in Europe's southern countries demonstrates, such an assumption is risky. Europe's institutions make it easier for poorer economies to catch up. But persistent high income levels must be earned in Europe as elsewhere.
- Note that in this chart, Azerbaijan is excluded from the trend line for Europe because as an oil producer it runs huge current account surpluses. Poorer developing countries are excluded from the "rest of the world" trend line because official flows play a much greater role and the determinants of these flows are quite different.
- **9** This puzzle was first formally noted by Gourinchas and Jeanne (2007).
- 10 EBRD (2009) reached a similar conclusion.
- 11 Gordon (2004) estimates that around one-third of the gap in incomes per capita between the EU15 and the United States may be due to voluntary reductions in labor supply in Europe. However, the remainder reflects regulations that reduce labor supply and should be seen as a welfare loss. In Europe, this claim is considered debatable.
- 12 They also mirror low tax morale and low confidence in public institutions (World Bank 2011). While labor market regulations and payroll tax rates do matter, general institutional weaknesses are likely to be at least as important in perpetuating informality.
- 13 Most European countries also provide more protection against unemployment than other OECD countries. Of the 15 OECD countries with replacement rates during the first year of unemployment above the average (66 percent), 14 are EU member states. The United Kingdom, Ireland, and Greece stand out for low replacement rates.
- 14 The incidence of low pay is defined by the OECD as the share of full-time workers earning less than two-thirds of median earnings. Low pay is thus a relative rather than absolute concept and closely related to measures of the dispersion of earnings.
- Other analyses suggest that instead of a European model, there are several regional models within Europe. Roxburgh and Mischke (2011) identify a northern model, which includes Ireland, the Nordic nations, and the United Kingdom; a continental

- model, including Austria, the Benelux states, France, and Germany; and a southern model, including Greece, Italy, Portugal, and Spain. Atkinson, Piketty, and Saez (2011) distinguish an English-speaking group of countries in the evolution of income distribution from Continental Europe. Eastern Europe is in many respects unique given the persistent legacies of central planning. This chapter emphasizes the common aspects; the next six chapters identify cross-country differences in the principal components of the growth model.
- Although public debt levels are high in most European countries, the sustainable level of public debt differs significantly between countries like Germany that is running current account surpluses and countries like Greece with a large current account deficit. von Weizsäcker (2011) argues that for countries like Germany, the optimal public debt level has increased as demographic changes have led to a downward shift in the natural rate of interest. In a "closed economy" setting with public debt held domestically, this implies a higher sustainable public debt level. Japan falls into the same category.
- 17 Darvas (2011) examines recoveries following banking crises and shows that in countries with flexible exchange rates, postcrisis growth was higher, even when credit was subdued, than in countries facing the need to adjust with fixed exchange rates.
- 18 This argument assumes that the skills provided by Spanish and Italian universities are the skills required by German employers. Increasing labor mobility in Europe also requires improved recognition of professional qualifications and arguably greater attention to quality in Europe's education systems.
- 19 Rahm Emmanuel, the White House chief of staff, in an interview with *The Wall Street Journal*, November 19, 2008.

References

Abbas, S., N. Belhocine, A. El-Ganainy, and M. Horton. 2011. "Historical Patterns and Dynamics of Public Debt—Evidence from a New Database." IMF Economic Review 59 (4): 717–742.

Acemoglu, D., S. Johnson, and J. Robinson. 2001. "The Colonial Origins of Comparative Development: An Empirical Investigation." The American Economic Review 91 (5): 1369–1401.

Aghion, P., and P. Howitt. 2006. "Joseph Schumpeter Lecture – Appropriate Growth Policy: A Unifying Framework." Journal of the European Economic Association 4 (2–3): 269–314.

Atkinson, A., T. Piketty, and E. Saez. 2011. "Top Incomes in the Long Run of History." Journal of Economic Literature 49 (1): 3–71.

Conference Board, The. 2011. "Total Economy Database." January 2011, The Conference Board, New York, NY. Available at www.conference-board.org/data/ economydatabase. Accessed September 3, 2011.

Darvas, Z. 2011. "A Tale of Three Countries: Recovery after Banking Crises." Bruegel Policy Contribution 2011/19, Bruegel, Brussels. Background paper for this report.

DeLong, J. 1997. "Post-WWII Western European Exceptionalism: The Economic Dimension." Brad DeLong's Website, December. Available at www.j-bradforddelong.net/Econ_Articles/ucla/ucla_ marshall2.html. Accessed July 10, 2011.

EBRD (European Bank for Reconstruction and Development). 2009. Transition Report 2009: Transition in Crisis? London: ERBD.

Economist, The. 2009. "Going to America: A Ponzi Scheme that Works." December 19, Volume 393, Issue 8662: 41–44.

Eichengreen, B. 1996. "Institutions and Economic Growth: Europe after World War II." In Economic Growth in Europe since 1945, ed. N. Crafts, and G. Toniolo: 38–72. New York, NY: Cambridge University Press.

Eucken, W. 1940. Die Grundlagen der Nationalökonomie. Jena: Gustav Fischer.

Giersch, H. 1985. Eurosclerosis. Kiel: Inst. für Weltwirtschaft.

Gordon, R. 2004. "Two Centuries of Economic Growth: Europe Chasing the American Frontier." NBER Working Paper 10662, National Bureau of Economic Research, Cambridge, MA.

Gourinchas, P-O., and O. Jeanne. 2007. "Capital Flows to Developing Countries: The Allocation Puzzle." NBER Working Paper 13602, National Bureau of Economic Research, Cambridge, MA.

Gwartney, J., J. Hall, and R. Lawson. 2010. Economic Freedom of the World: 2010 Annual Report. With C. Coyne, J. Dawson, H. Feldmann, J. Levendis, R. Sobel, and E. Stringham. Vancouver, BC: The Fraser Institute.

Heston, A., R. Summers, and B. Aten. 2011. "Penn World Table Version 7.0." May, Center for International Comparisons of Production, Income and Prices, University of Pennsylvania, Pennsylvania, PA.

ILO (International Labour Office). 2010a. Global Wage Report 2010/11: Wage Policies in Times of Crisis. Geneva: ILO.

ILO (International Labour Office). 2010b. Key indicators of the Labour Market, Sixth Edition. Geneva: ILO.

Jones, C., and P. Klenow 2010. "Beyond GDP? Welfare across Countries and Time." NBER Working Paper 16352, National Bureau of Economic Research, Cambridge, MA.

Jorgenson, D., and M. Timmer. 2011. "Structural Change in Advanced Nations: A New Set of Stylised Facts." The Scandinavian Journal of Economics 113 (1): 1–29.

Kaufmann, D., A. Kraay, and M. Mastruzzi. 2010. "The Worldwide Governance Indicators: Methodology and Analytical Issues." Policy Research Working Paper 5430, World Bank, Washington, DC.

Krugman, P. 2011. "Eurotrashed." The New York Times, January 16.

Lucas, R. 1990. "Why Doesn't Capital Flow from Rich to Poor Countries?" The American Economic Review 80 (2): 92–96.

MacGillivray, A., P. Begley, and S. Zadek, ed. 2007. The State of Responsible Competitiveness 2007. London: AccountAbility. Mankiw, N., D. Romer, and D. Weil. 1992. "A Contribution to the Empirics of Economic Growth." The Quarterly Journal of Economics 107 (2): 407–437.

Miller, T., and K. Holmes. 2011. 2011 Index of Economic Freedom: Promoting Economic Opportunity and Prosperity. Washington, DC: The Heritage Foundation.

Monti, M. 2010. "A New Strategy for the Single Market: At the Service of Europe's Economy and Society." Report to the President of the European Commission, May 9, European Commission, Brussels.

Müller-Armack, A. 1947. Wirtschaftslenkung und Marktwirtschaft. Hamburg: Verlag für Wirtschaft und Sozialpolitik.

OECD (Organisation for Economic Cooperation and Development). 1999. OECD Employment Outlook 1999. Paris: OECD.

OECD (Organisation for Economic Cooperation and Development). 2004. OECD Employment Outlook 2004. Paris: OECD.

Phelps, E. 1961. "The Golden Rule of Accumulation: A Fable for Growthmen." The American Economic Review 51 (4): 638–643.

Phelps, E. 2007. "Economic Dynamism and the Social Market Economy: Are They Reconcilable?" 2007 Annual Ludwig Erhardt Lecture, Initiative Neue Soziale Marktwirtschaft, October 12, Berlin.

Prasad, E., R. Rajan, and A. Subramanian. 2007. "Foreign Capital and Economic Growth." Brookings Papers on Economic Activity 2007 (1): 153–209.

Roxburgh, C., J. Mischke, B. Regout, D. Archetti, A. Chau, P. D'Aprile, A. Harbola, H. Proff, D. Schmautzer, M. Thomys, and A. Weber. 2010. "Beyond Austerity: A Path to Economic Growth and Renewal in Europe." October 2010, McKinsey Global Institute, London.

Roxburgh, C., and J. Mischke. 2011. "European Growth and Renewal: The Path from Crisis to Recovery." Updated research, July, McKinsey Global Institute, London.

Schwab, E., ed. 2009. The Global Competitiveness Report 2009–2010. Geneva: WEF.

Schwab, E., ed. 2010. The Global Competitiveness Report 2010–2011. Geneva: WEF. Solow, R. 1956. "A Contribution to the Theory of Economic Growth." The Quarterly Journal of Economics 70 (1): 65–94.

Veenhoven, R. 2011. "Bibliography of Happiness." World Database of Happiness, Erasmus University Rotterdam, Rotterdam. Available at worlddatabaseofhappiness.eur. nl/hap_bib/bib_fp.php. Accessed February 5, 2011.

Venn, D. 2009. "Legislation, Collective Bargaining and Enforcement: Updating the OECD Employment Protection Indicators." OECD Social, Employment and Migration Working Paper 89, OECD, Paris. von Weizsäcker, C. 2011. "Public Debt Requirements in a Regime of Price Stability." Paper presented at the CER-ETH Research Seminar, April 12, Zurich.

World Bank. 2009. World Development Report 2009: Reshaping Economic Geography. Washington, DC: World Bank.

World Bank. 2011. "In from the Shadow: Integrating Europe's Informal Labor." World Bank Report 63078-ECA, World Bank, Washington, DC.



Spotlight One

Europe—convergence machine

Economic growth has helped Europe rise from the devastation and misery of World War II to unprecedented wealth, technological sophistication, and the world's best quality of life. Since the war, Western Europe's output has tripled and Eastern Europe's doubled. The European Union, itself an unprecedented achievement, is in many ways the world's largest economy. European societies have developed market-based systems combining high levels of economic activity with equity and social inclusion.



Growth rate

1950 to 1973

Western Europe converges toward the living standards of the United

1974 to 1993

Northern and Southern Europe converge toward the income levels of Continental Europe

1994 to 2010

Eastern Europe converges toward the incomes and institutions of Western

Annual average growth of GDP per capita, percent











These developments are all the more remarkable when considering the poor conditions—social, political, and economic—that prevailed at the end of what has been called Europe's second Thirty Years' War. From 1913 to 1950, the continent's growth rate was half its long-run trend. Europe entered the twentieth century as the richest region in the world, but by mid-century, retaining this distinction was anything but assured. Fewer than six decades later, however, an American economist would write:

In the second half of the twentieth century, the lives of Europeans were transformed beyond recognition. In 1950, many of the continent's residents heated their homes with coal, cooled their food with ice, and lacked even rudimentary forms of indoor plumbing. Today, their lives are eased and enriched by natural-gas furnaces, electric refrigerators, and an array of electronic gadgets that boggles the mind. Gross domestic product per capita, what the income of a typical resident of Europe will buy, tripled in the second half of the twentieth century. The quality of life improved even more than suggested by this simple measure. Hours worked declined by one-third, providing an enormous increase in leisure time. Life expectancy lengthened as a result of improved nutrition and advances in medical science (Eichengreen 2007, p. 1).

By 2008, on the eve of the financial crisis, Europe was the envy of the world. The United States had the might and China the momentum, but Europe had the highest living standards. Even with average incomes about a quarter short of the United States's, Europe had become the "lifestyle superpower" that in 1992 Prime Minister Kiichi Miyazawa had promised to make Japan. Millions of people from around the world flocked to Europe to see this economic miracle and taste European life (figure S1.1).

This six-decade run of prosperity breaks neatly into three periods—each about two decades long—of changing economic growth patterns:

- From 1950 until 1973, Europe exhibited historically high rates of economic growth, nearly full employment, and convergence to the United States. This period of accelerated growth—a "Golden Age" in Western Europe and a "Silver Age" in centrally planned Eastern Europe—ended for most of the continent in the early 1970s (Crafts and Toniolo 1996).
- From 1974 until 1993, Northern and Southern Europe continued to converge
 to the levels of living in Europe's core. Yet despite continued growth, Europe's
 largest economies stopped catching up to the United States, the world's
 technology leader. Meanwhile in the east, growth first slowed and then
 collapsed along with the Berlin Wall and central planning during the
 early 1990s.
- With the signing of the first EU Association Agreements by countries in Eastern Europe in 1994, growth accelerated quickly in the east until the economic crisis in 2008. Convergence proceeded across the continent. This period saw more than a decade of convergence in living standards in the 12 new EU member states and the 8 Balkan economies aspiring to join them. In the south, convergence was reignited during this period, though at a slower pace than in the east.





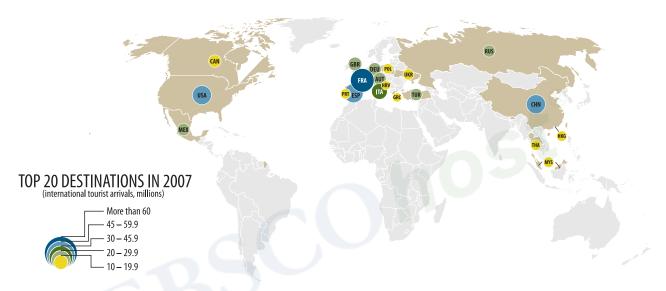


These patterns evolved alongside, and were influenced by, growing economic cooperation across Europe. Beginning with the 1949 Council for Mutual Economic Assistance in the east and the 1950 European Payments Union in the west, the continent pursued near-constant-if not always linear-economic integration. Political integration eventually followed, resulting in a European Union that merged east and west. The impetus for these regional agreements was geopolitical, but the outcome was regimes that facilitated economic integration and growth, particularly in Western Europe.

Figure S1.1: Europe—the lifestyle superpower

(top 20 international destinations for tourists, 2007)

Source: World Bank staff, using data from the UN World Tourism Organization.



1950 to 1973: golden, with a silver fringe

Europe's growth from the first few years of postwar reconstruction until the oil crisis of 1973 was its fastest ever recorded. Growth in real GDP per person was over 3.5 percent in Western and Eastern Europe and 4.5 percent in Southern Europe during this period (table S1.1). The average growth rate for all of Europe had not exceeded 1.5 percent in the previous 130 years. The expansion was even more remarkable because it came after four decades of subtrend growth below 1 percent caused by destruction and depression.

For the first time in the twentieth century, Europe outperformed the United States (which grew at 2.3 percent) and every other major economy except Japan. Growth in every European country save the United Kingdom exceeded U.S. growth. Labor productivity growth was 2 percentage points higher a year in the west and 8 points higher in the south. The top performers in Western Europe (Austria, Germany, and Italy), Southern Europe (Greece, Portugal, and Spain), and Eastern Europe (Bulgaria and Romania) had growth rates that exceeded U.S. rates by 2 percentage points or more. The gap in GDP per capita between Western Europe and the United States closed from 48 percent in 1950 to 28 percent in 1973. A similar pattern of convergence occurred in Southern Europe, with the gap closing from 79 percent to 65 percent over the same period. Slightly slower growth in Eastern Europe resulted in a slower pace of convergence with the United States, with the gap falling from 78 percent to 70 percent.