# Bulgarian Competitiveness: A Framework and Preliminary Evidence

Professor Michael E. Porter Harvard Business School

Visit of President of Bulgaria Rosen Plevneliev Boston, MA September 27, 2012

This presentation draws on ideas from Professor Porter's articles and books, in particular, The Competitive Advantage of Nations (The Free Press, 1990), "Building the Microeconomic Foundations of Competitiveness," in The Global Competitiveness Report (World Economic Forum), "Clusters and the New Competitive Agenda for Companies and Governments" in On Competition (Harvard Business School Press, 2008), and ongoing research on clusters and competitiveness. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means - electronic, mechanical, photocopying, recording, or otherwise - without the permission of Michael E. Porter. Further information on Professor Porter's work and the Institute for Strategy and Competitiveness is available at <a href="https://www.isc.hbs.edu">www.isc.hbs.edu</a>

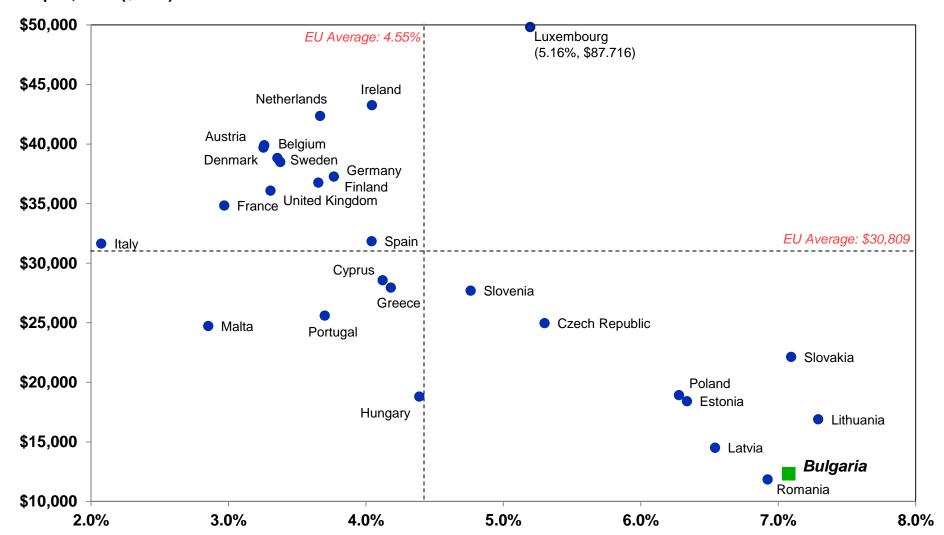
#### **Agenda**

Bulgaria's Performance

Diagnosing Competitiveness

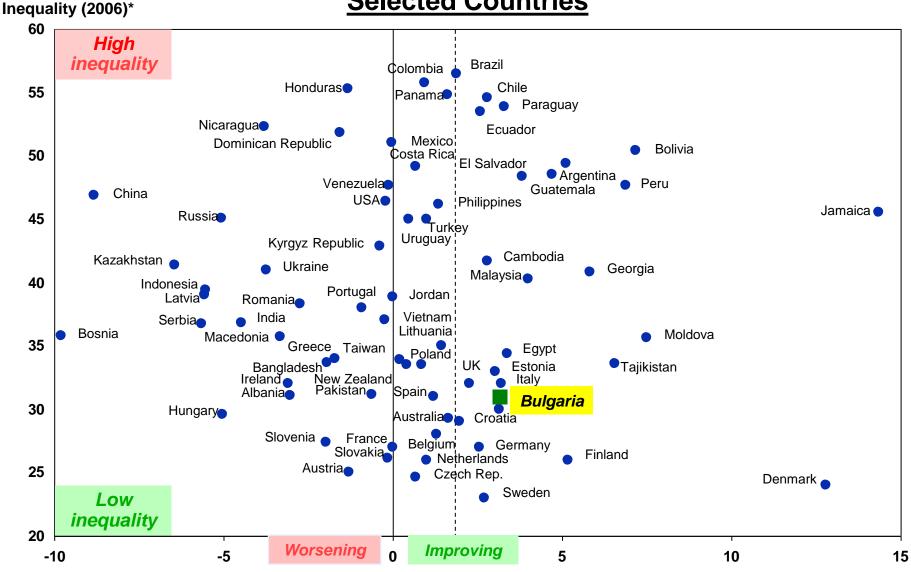
### Prosperity Performance <u>EU Countries</u>

PPP-Adjusted GDP per Capita, 2010 (\$USD)



Growth of Real GDP per Capita (PPP-adjusted), CAGR, 2000-2010

### **Income Inequality Selected Countries**



Change in Inequality, 2006 versus 2002

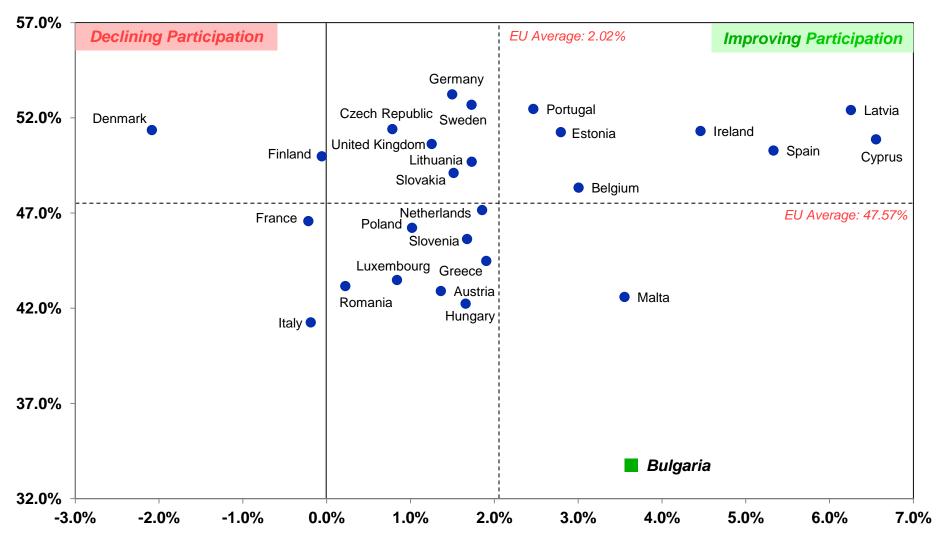
Note: \* latest data available used (in some cases earlier years data used)

Source: World Bank, World Development Indicators, 2008, United Nations University (UNU-WIDER)

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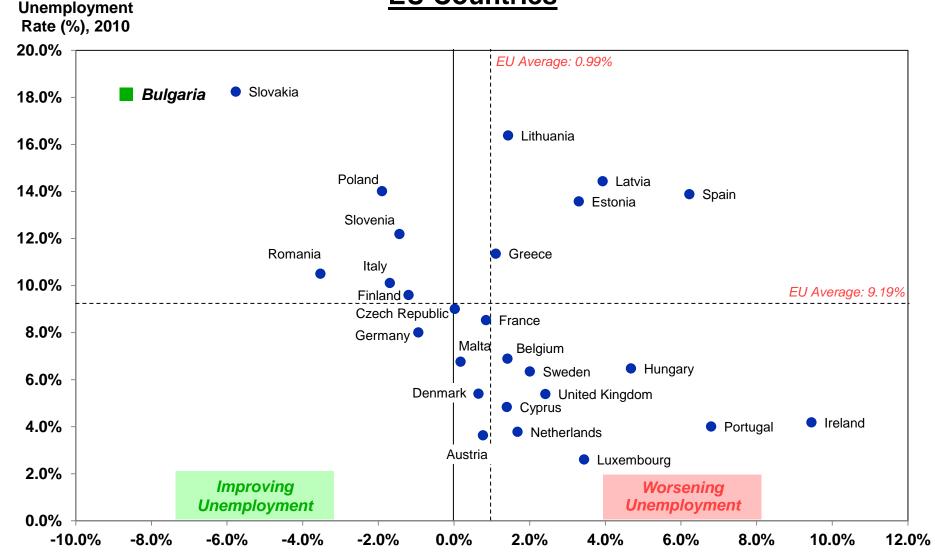
#### Workforce Participation EU Countries

Labor Force Participation (2010)



**Change in Labor Force Participation Rate, 2000-2010** 

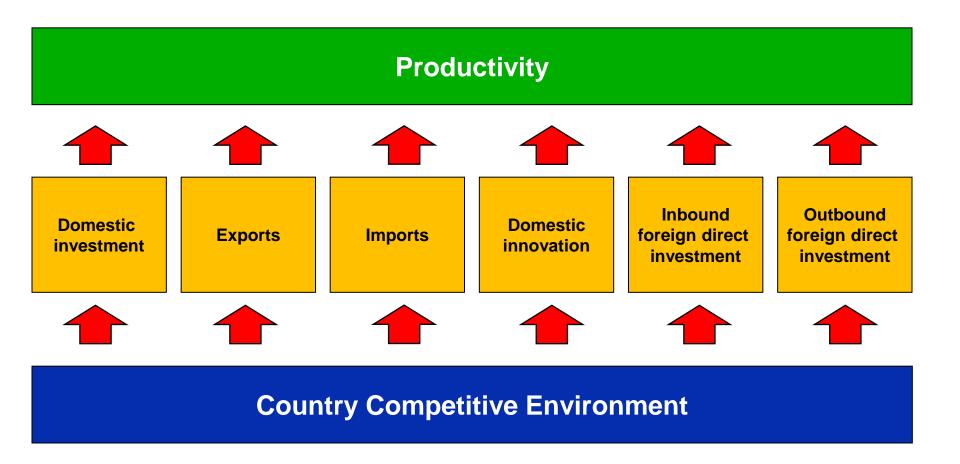
### **Unemployment Performance EU Countries**



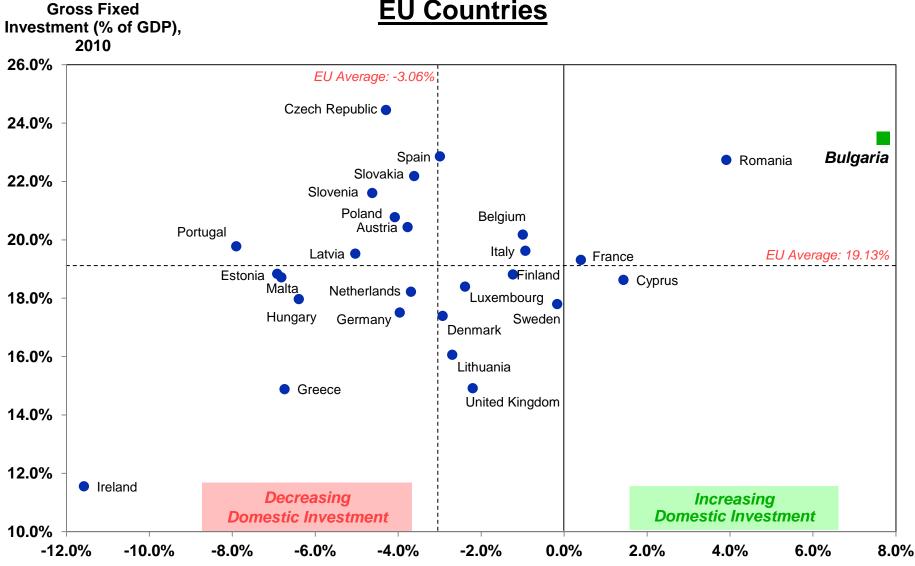
Change in Unemployment Rate in Percentage Points, 2000-2010

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## Intermediate Indicators and Enablers of Productivity



### Domestic Investment Performance <u>EU Countries</u>

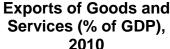


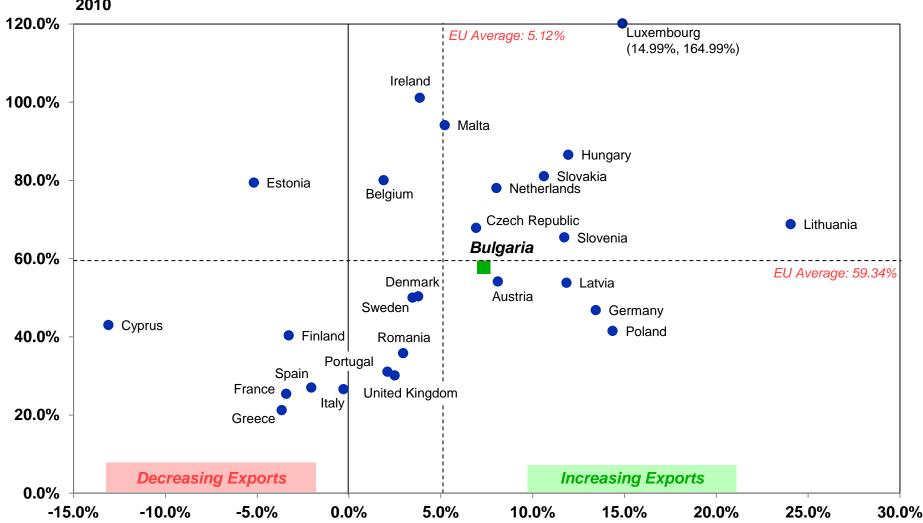
Change in Gross Fixed Investment (% of GDP), 2000-2010

Note: Includes inbound FDI

Source: EIU (2012)

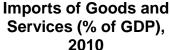
### **EXPORT Performance EU Countries**

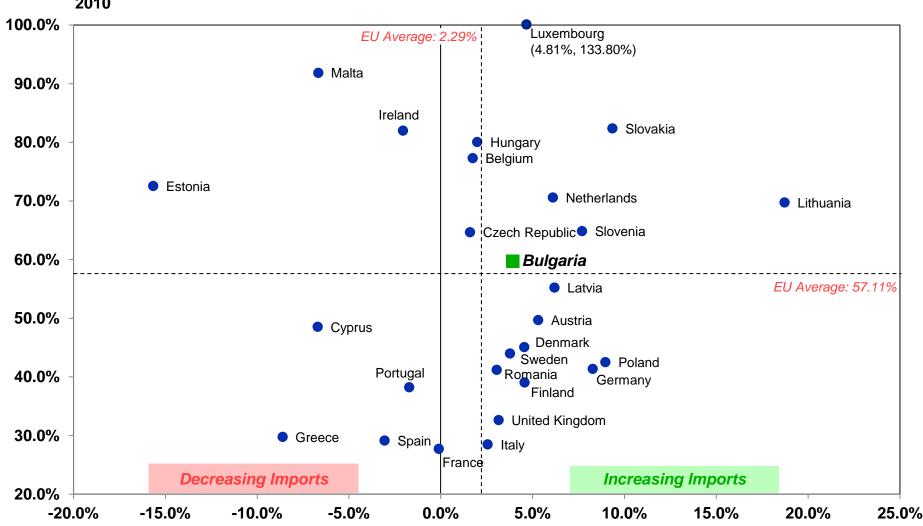




Change in Exports of Goods and Services (% of GDP), 2000-2010

### Import Performance EU Countries



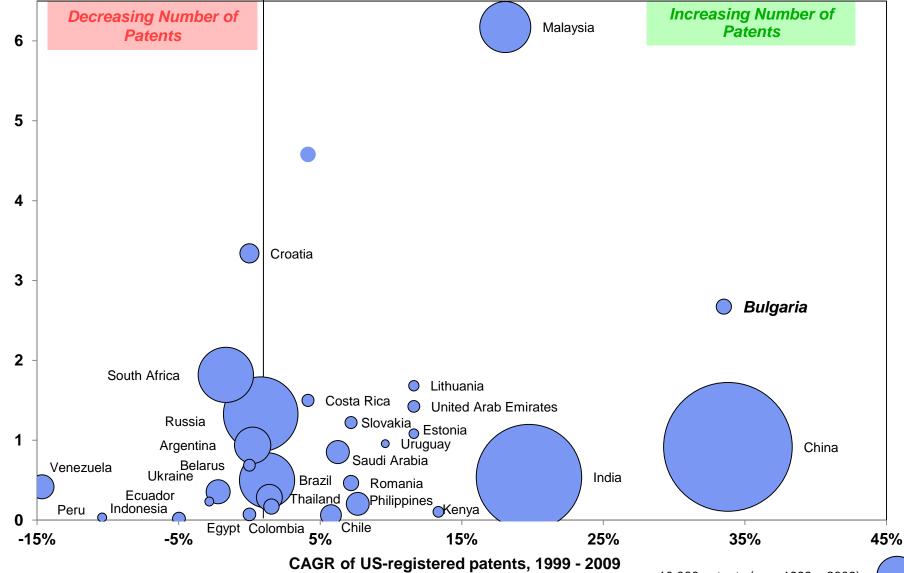


Change in Imports of Goods and Services (% of GDP), 2000-2010

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### Innovative Output Selected Countries

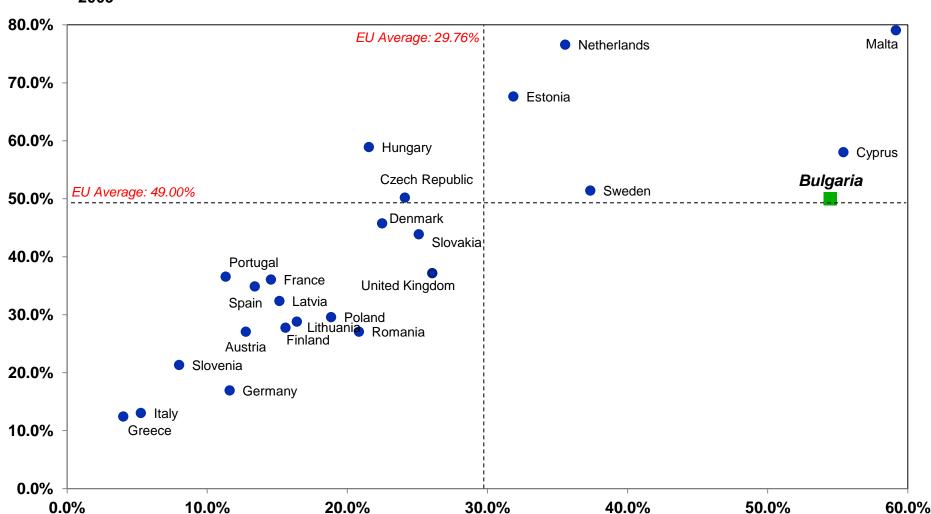
Average U.S. utility patents per 1 million population, 2007-2009



Source: USPTO (2010), Groningen Growth and Development Centre, Total Economy Database (2010)

### Inbound Foreign Investment Performance Stocks and Flows, EU Countries

Inward FDI Stocks as % of GDP, Average 1999-2009



FDI Inflows as % of Gross Fixed Capital Formation, Average 1999-2009

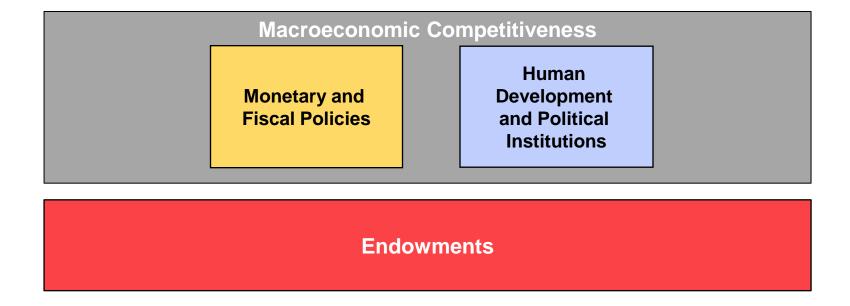
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#### **Endowments**

• Endowments, i.e. **natural resources**, **geographical location**, and **size**, create a **foundation** for prosperity, but true prosperity is created by **productivity in the use of endowments** 

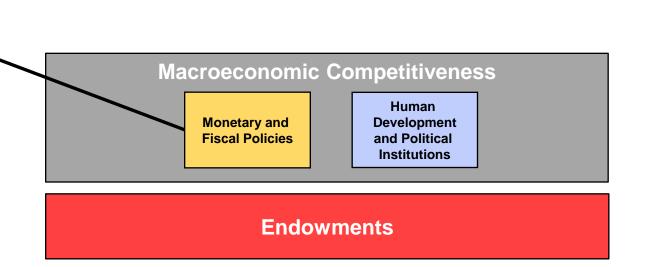


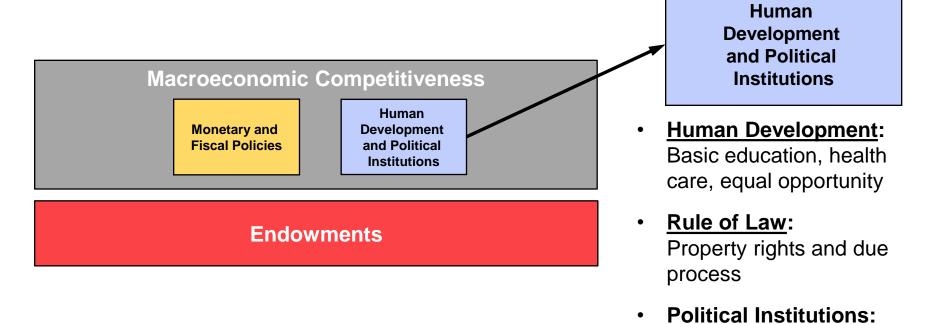
- Macroeconomic competitiveness sets the economy-wide context for high productivity to emerge, but is not sufficient to achieve this outcome
- Endowments, i.e. **natural resources**, **geographical location**, and **size**, create a **foundation** for prosperity, but true prosperity is created by **productivity in the use of endowments**

Monetary and Fiscal Policies

- Fiscal Policy:
   Public spending aligned with revenues over time
- Monetary Policy:
   Low levels of inflation
- Economic Stabilization: Avoiding structural

imbalances and cyclical overheating

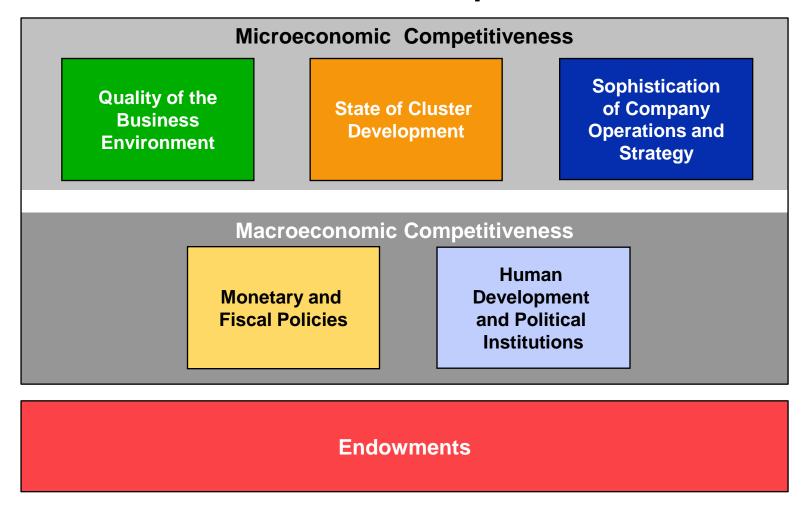




Stable and effective

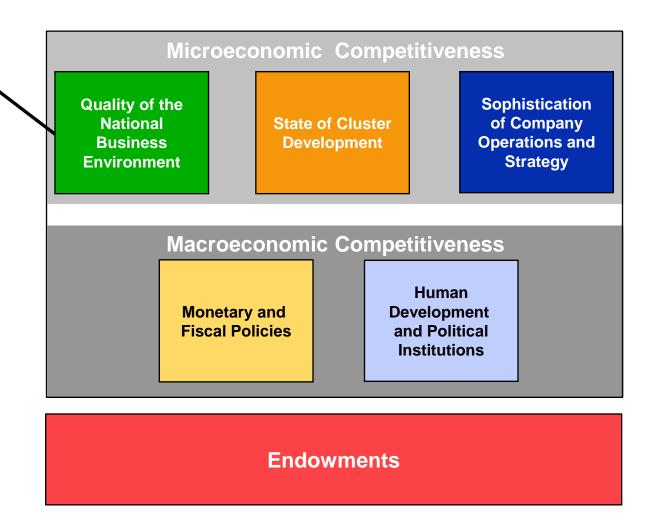
processes and organizations

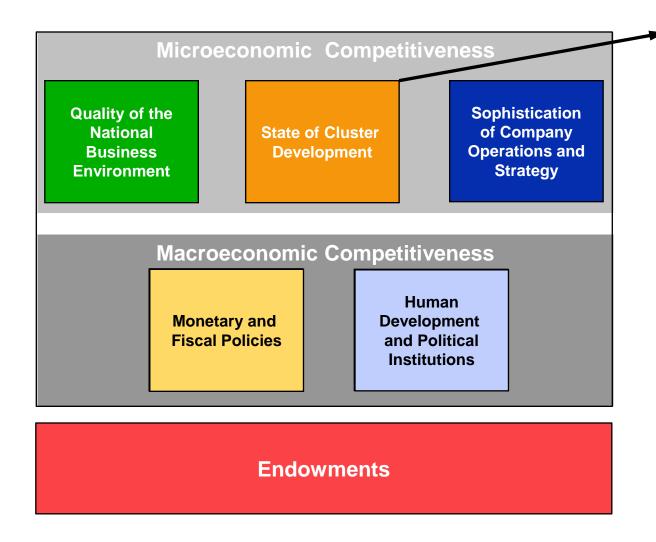
political and governmental



- Productivity ultimately depends on improving the microeconomic capability of the economy and the sophistication of local competition revealed at the level of regions and clusters
- Macroeconomic competitiveness sets the **economy-wide** context for high productivity to emerge, but is not sufficient to achieve this outcome
- Endowments, i.e. natural resources, geographical location, and size, create a foundation for prosperity, but true prosperity is created by productivity in the use of endowments ########(presentation date)—File Name Here—v#—February 27, 2014

The external business environment conditions that enable company productivity and innovation





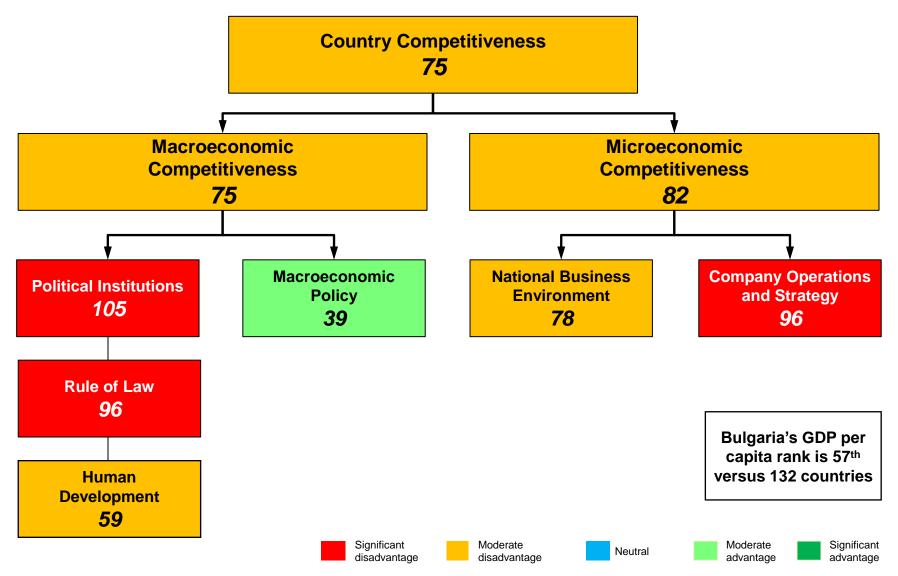
A critical mass of firms and institutions in each field to harness efficiencies and externalities across related entities

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Microeconomic Competitiveness **Quality of the Sophistication National** of Company **State of Cluster Business Operations and Development** Strategy **Environment Macroeconomic Competitiveness** Human **Monetary and Development Fiscal Policies** and Political **Institutions Endowments** 

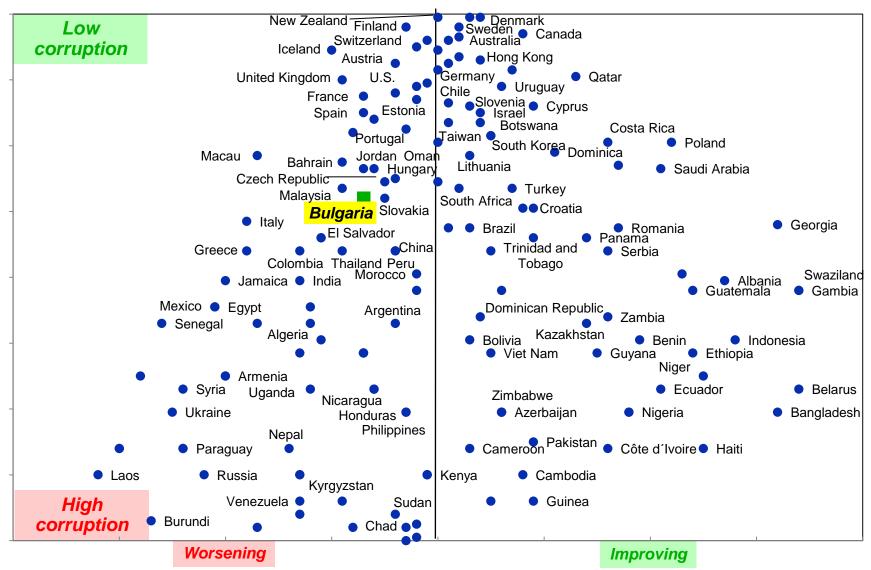
Internal skills, capabilities, and management practices needed for companies to attain the highest level of productivity and innovation possible given external conditions

### **Benchmarking Competitiveness Bulgaria's Competitiveness Profile, 2011**



Note: Rank versus 132 countries; overall, Iceland ranks 57<sup>th</sup> in PPP adjusted GDP per capita and 75<sup>th</sup> in Global Competitiveness Source: Institute for Strategy and Competitiveness, Harvard University (2011), based in part on survey data from the World Economic Forum.

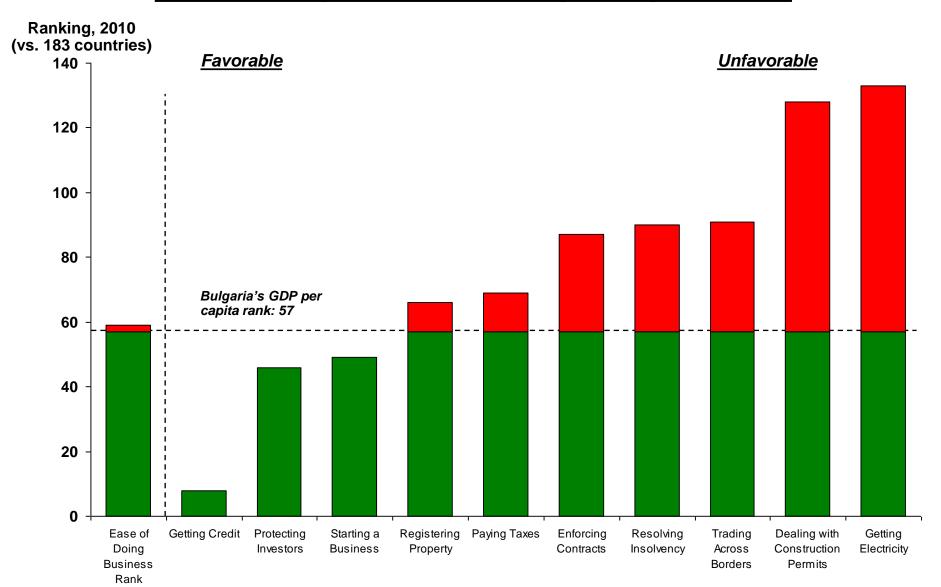
#### **Corruption Perception Index, 2010**



Change in Rank, Global Corruption Report, 2010 versus 2006

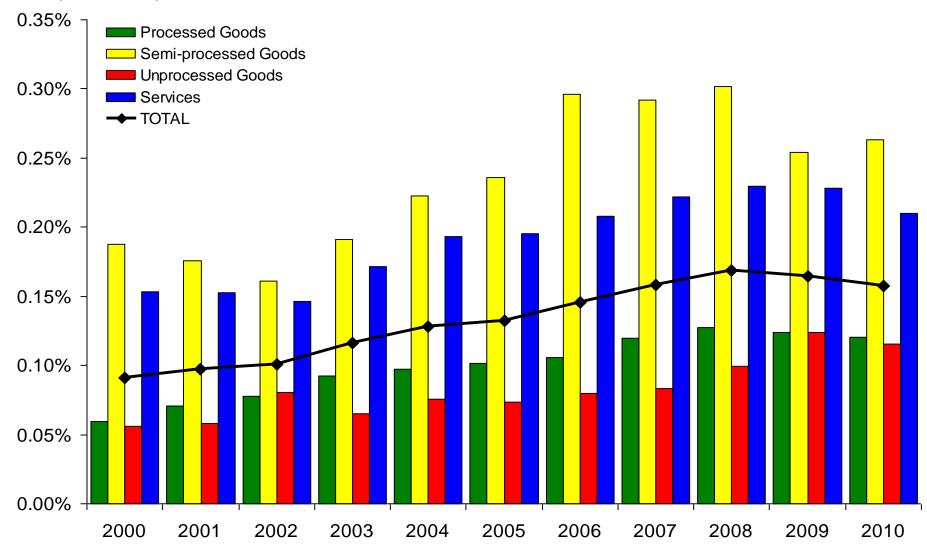
Note: Ranks only countries available in both years (160 countries total)

### Microeconomic Competitiveness Indicators <a href="Ease of Doing Business Rankings">Ease of Doing Business Rankings</a> (Bulgaria, 2012)



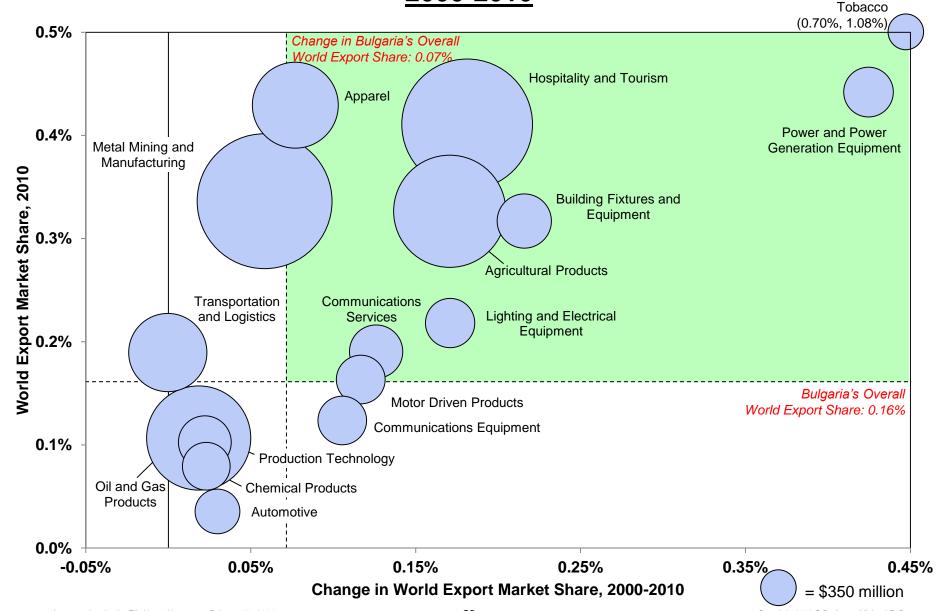
### Composition of Exports Bulgaria's Exports By Type of Good

### World Export Market Share (current USD)



Source: Prof. Michael E. Porter, International Cluster Competitiveness Project, Institute for Strategy and Competitiveness, Harvard Business School; Richard Bryden, Project Director. Underlying data drawn from the UN Commodity Trade Statistics Database and the IMF BOP statistics.

Bulgaria's National Cluster Export Portfolio 2000-2010



**Cluster Linkages and Economic Diversification** Bulgaria, 2010 World Market Share 0.04% - 0.15% Fishing & Fishing 0.16% - 0.39% **Products Textiles** Prefabricated **Hospitality** > 0.40% **Enclosures** Agricultural & Tourism Products, Processed **Furniture** Transportation Enter-Food **Building** & Logistics Aerospace tainment Fixtures, Vehicles & Construction **Equipment &** Defense Materials Information Services Distribution Tech. Jewelry & Services Heavy Lightning & **Precious** Metals **Electrical** Construction Analytical Business Services Equipment **Education &** Instruments Services Forest Knowledge **Power** /Medical` Generation **Products** Creation **Devices** Communications **Publishing** Equipment **Financial** & Printing Biopharma-Heavy Services ceuticals Machinery Production Motor Driven **Technology** Chemical **Products Products** Tobacco Oil & **Apparel** Gas Mining & Metal **Automotive** Manufacturing **Plastics** Aerospace **Engines** Leather & Footwear Related Sporting **Products** & Recreation Goods

### Established Bulgarian Export Products Leading Exports by World Share, 2010

Rank	Industry	Cluster	World Export Share	Change in Share (2000-2010)	Export Value (in \$ thousands)
1	Monofilament of ethylene	Plastics	6.43%	5.77%	\$13,883
2	Carbonates, percarbonates	Chemical Products	4.31%	4.25%	\$184,905
3	Cinematograph film, exposed and developed	Entertainment and Reproduction Equipment	3.35%	2.43%	\$21,200
4	Lead	Metal Mining and Manufacturing	3.14%	0.61%	\$174,510
5	Miscellaneous footwear with leather uppers	Footwear	2.74%	-0.40%	\$13,801
6	Pulley tackle and hoists	Production Technology	2.60%	1.57%	\$28,960
7	Wine, cider or similar beverage making machinery	Processed Food	2.51%	2.08%	\$5,614
8	Women's or girls' blouses, shirts and shirt-blouses, knitted	Apparel	2.41%	1.06%	\$134,417
9	Copper bars, rods and profiles	Metal Mining and Manufacturing	2.41%	2.40%	\$134,702
10	Copper, copper anodes and alloys	Metal Mining and Manufacturing	2.14%	-0.18%	\$1,593,226
11	Copper plates, sheets and strip, 15mm+ thickness	Metal Mining and Manufacturing	2.01%	2.01%	\$194,807
12	Miscellaneous simply shaped wood	Building Fixtures and Equipment	1.95%	1.65%	\$4,616
13	Medicaments containing alkaloid	Biopharmaceuticals	1.83%	1.78%	\$64,370
14	Yarn of wool or animal hair	Textiles	1.83%	1.80%	\$56,282
15	Ceramic plumbing fixtures	Construction Materials	1.82%	0.41%	\$70,998
16	Tobacco, unmanufactured	Tobacco	1.77%	0.94%	\$191,240
17	Copper mattes; cement copper	Metal Mining and Manufacturing	1.67%		\$7,366
18	Zinc	Metal Mining and Manufacturing	1.65%	0.17%	\$189,208
19	Barley, unmilled	Agricultural Products	1.61%	1.05%	\$79,445
20	Tobacco working machinery	Production Technology	1.58%	0.81%	\$9,671
21	Dairy machinery	Processed Food	1.57%	1.24%	\$8,032
22	Fuel wood, wood charcoal	Forest Products	1.57%	0.17%	\$15,702
23	Precious metal waste and scrap	Jewelry, Precious Metals and Collectibles	1.54%		\$192,529
24	Miscellaneous measuring, controlling and scientific instrumen	tt Analytical Instruments	1.49%	1.46%	\$121,428
25	Monofilament of vinyl chloride	Plastics	1.42%	1.42%	\$40,260
26	Men's or boys' suits and ensembles	Apparel	1.41%	0.33%	\$61,306
27	Densified, reconstituted wood	Building Fixtures and Equipment	1.39%	1.20%	\$90,637
28	Wheat, meslin, unmilled	Agricultural Products	1.39%	1.03%	\$451,936
29	Parts of footwear; removable in-soles and similar articles	Footwear	1.38%	0.19%	\$94,152
30	Electric current	Power and Power Generation Equipment	1.38%		\$444,712
31	Other cereal meal, flours	Processed Food	1.21%	1.19%	\$12,103
32	Women's or girls' jackets	Apparel	1.19%	0.43%	\$69,112
33	Plants for pharmacy, perfumery, or for insecticidal purposes	Agricultural Products	1.16%	-0.28%	\$23,955
34	Glass containers	Processed Food	1.16%	0.65%	\$88,658
35	Aluminum tubes and pipes	Building Fixtures and Equipment	1.14%	1.13%	\$22,441
36	Household glassware	Building Fixtures and Equipment	1.11%	1.03%	\$92,815
37	Men's or boys' jackets and blazers	Apparel	1.05%	0.41%	\$44,091
38	Oilseed (soft fix vegetable oil)	Agricultural Products	1.04%	0.95%	\$562,108
39	Rice in the husk	Agricultural Products	1.02%	0.98%	\$10,465
40	Cigarettes containing tobacco	Tobacco	0.98%	0.81%	\$167,103