

International Regulatory Approaches

Prepared for CSIS

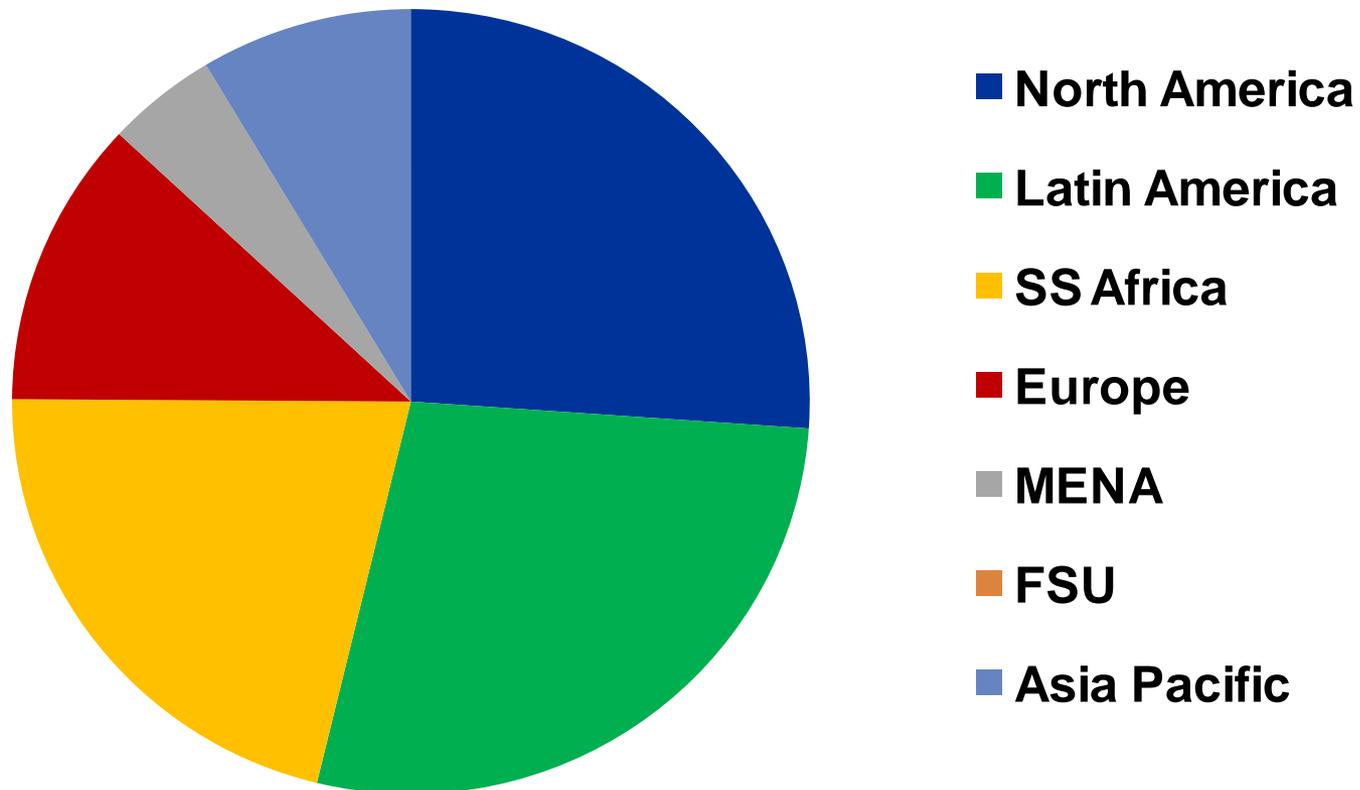
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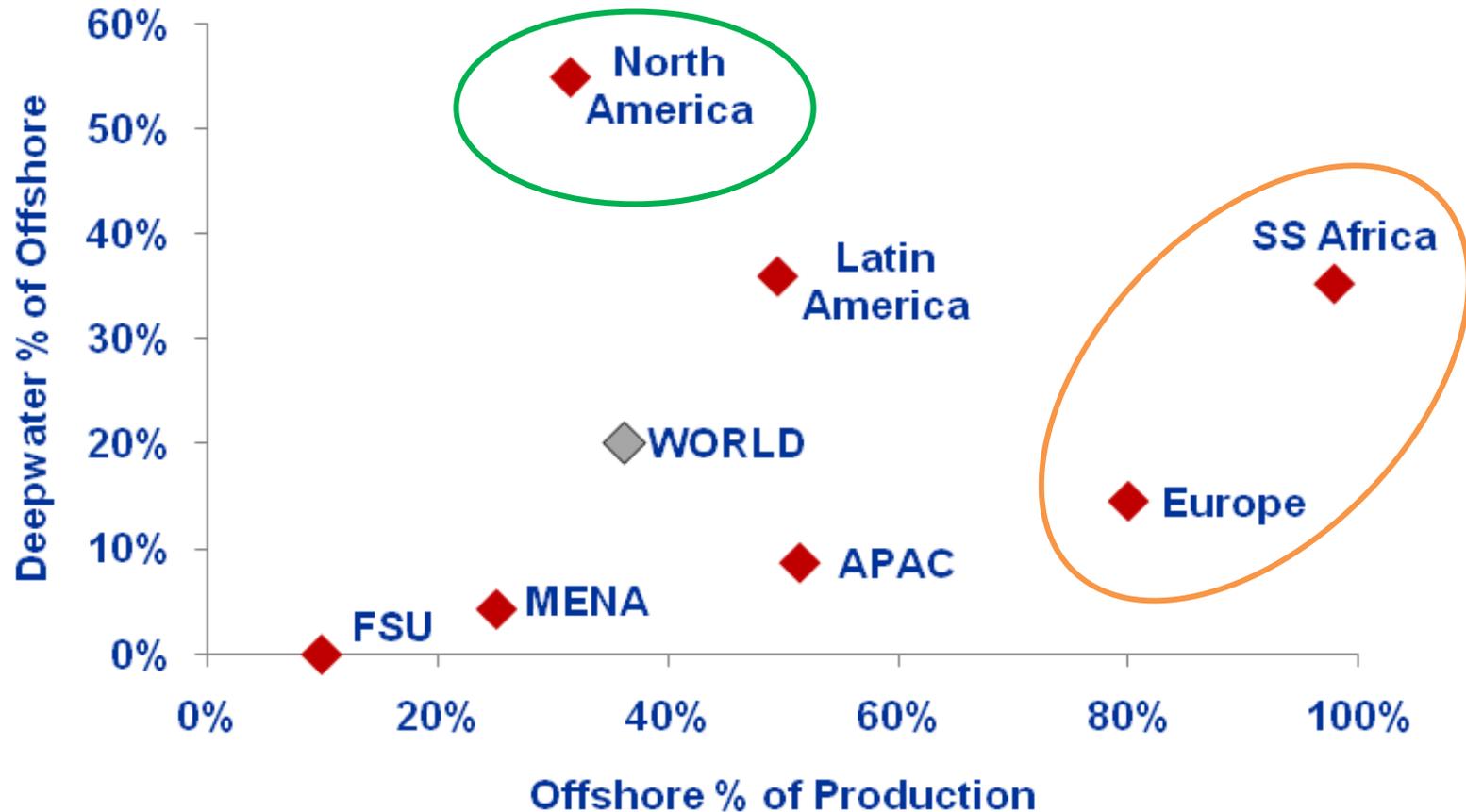
About 7% of Global Oil and Gas Comes from Deepwater—Concentrated in “Golden Triangle”

2010 Global Deepwater Production 8.5 mmboe/d



Offshore Dominates in Europe, Africa; Deepwater is Most Significant in North America

Importance of Offshore and Deepwater Production in 2010



High Profile Disasters Trigger Regulatory Responses

Date	Country	Incident	Consequence
1969	USA	Santa Barbara blowout lasted 1 year, damaged 40 miles of coastline	US removed land from leasing; California banned offshore drilling for 16 years
1979	Mexico	IXTOC-I leaked 3-5 mmb in 10 months	??
1989	USA	Exxon <i>Valdez</i>	OPA 1990, oil spill liability trust fund, double-hulled tankers
1988	UK	Piper Alpha explosion killed 167	Cullen Report and <i>Safety Case</i> regime
2001	Brazil	P-36 explosion killed 11	More support for competition in Brazilian offshore
2009	Australia	Montara blowout: 10 weeks to relief well	Commission of Inquiry results not yet released
2010	US	Macondo	5-month deepwater moratorium; tightened safety regime

Different Approaches to Regulation

- **All regulatory systems reflect tradeoffs.**
 - Safety case regulations require operators to be more proactive—but drafting and reviewing programs takes time
 - Prescriptive regulations set common standards—but place more burden on regulator
 - Countries with weak capacity have lax regulations—and thus higher risk of accidents and environmental degradation

Safety Case

- Operators must prove they have identified risks, designed equipment and procedures accordingly and can respond to accidents and emergencies
- Regulators approve and verify compliance with the company-identified safety cases—with varying degrees of intrusiveness
- Companies must “prove” they are to be trusted

Norway, UK, Australia, Canada, Brazil

Prescriptive

- Regulators play a more active role, setting requirements for operators and creating a universal standard
- Operating plans and environmental impact assessments must still be submitted and approved, but the burden is largely on the regulator
- Approvals are generally granted more quickly

United States, China, Indonesia, Malaysia

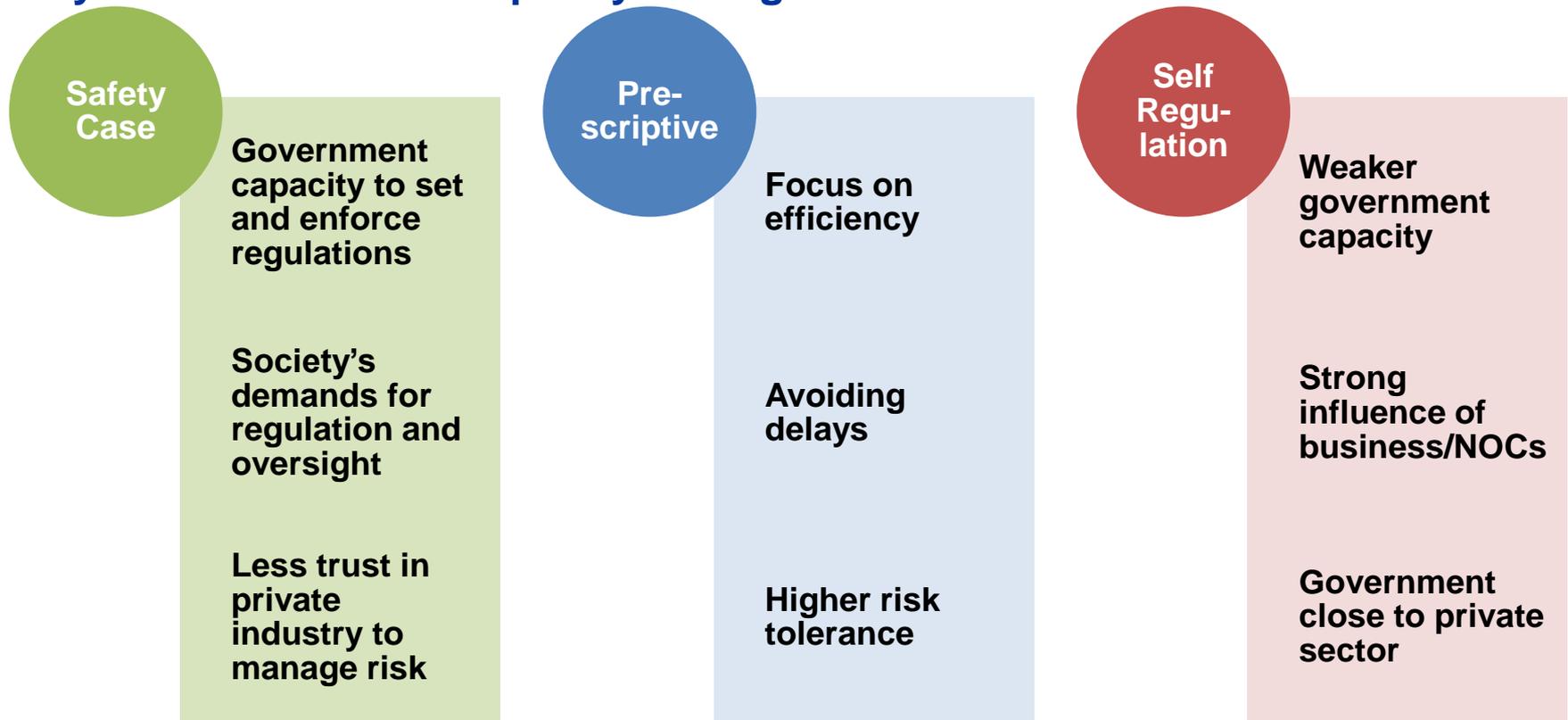
Self-Regulation

- In countries with minimal government capacity or nascent oil and gas sectors, regulators lack the experience and resources to play a robust role
- In these environments, companies largely regulate their own operations
- The result can be higher risk, unless companies employ the same safety methods they use elsewhere

Mexico, Angola, Nigeria, Ghana

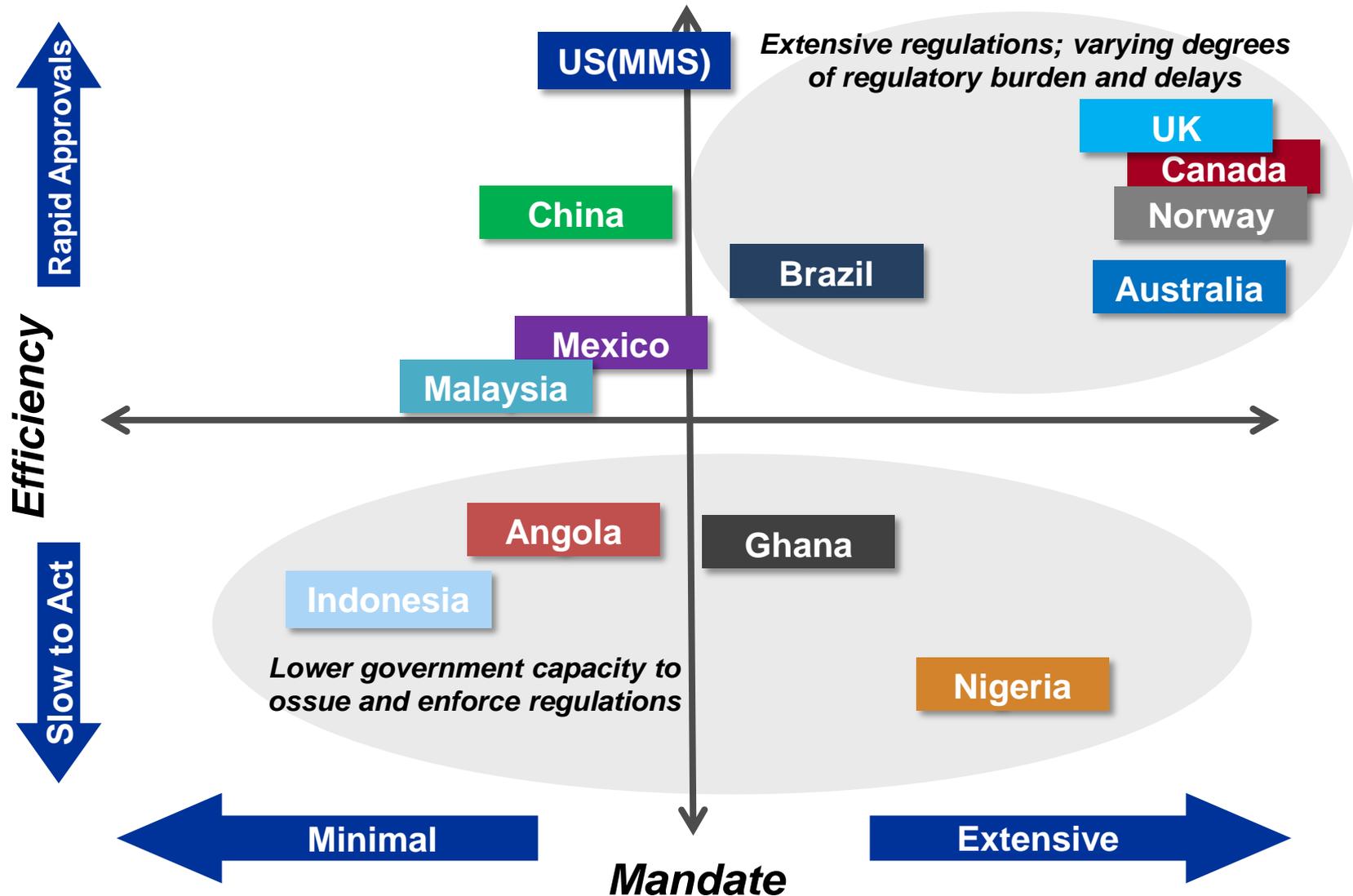
Underlying Drivers of Regulations

- Regulatory systems do not develop along the same path in every country.
- Regulations reflect the relationship in each state between the political system and economic policymaking.



When these underlying characteristics change—for example when a major accident shakes the public's faith in the capacity of the private sector to manage risk and ensure public safety—regulatory systems may be revised.

Environmental and Safety Regulation Reflects Government Capacity and Priorities



- **Offshore oil and gas exploration and production is**
 - Crucial to our energy security
 - A major source of employment, economic activity and exports
- **Regulation must be competent and timely**
- **It is impossible to regulate a dynamic industry with static rules**
- **Regulatory philosophy must be clear**
 - Safety case approach puts burden on companies
 - This is not compatible with detailed prescriptive regulations
- **Government must invest in people of the highest quality to oversee this industry**
 - Least cost bureaucratic responses would be a false economy



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