

An Introduction to Penrose's Life and Contribution

Dr. Christos N. Pitelis
Director, Centre for International Business and Management
Judge Business School
University of Cambridge

Panel 201
50th Anniversary of Penrose's (1959)
The Theory of the Growth of the Firm

SMS Conference
Washington, DC, October 11-14, 2009



CAMBRIDGE
Judge Business School

Aim



Celebrate 50 years of Penrose's
Theory of the Growth of the Firm
(also on occasion of the
publication of the 4th edition –
please buy it).



CAMBRIDGE
Judge Business School

Structure

- Co-Chairs: Yasemin Kor and Christos Pitelis
- Christos Pitelis 'Life and Contribution' – 5 minutes.
- Yasemin Kor - 12 minutes.
- Joseph Mahoney - 12 minutes.
- Margaret Peteraf - 12 minutes.
- Maurizio Zollo - 12 minutes.
- Christos Pitelis - 10 minutes.
- Open Discussion – 12 minutes.



Page 3

Life (with/by Perran Penrose) - Background and Education

- 1914-1996, born LA, parents early immigrants to US, father road engineer, close and supportive family in small town community, 'relatively humble background'.
 - Child Edith in 'road camps', once about to converse with a rattlesnake, which her mother shot!
- Education, San Luis Obispo, top of class in High, BA Berkeley (1936) in Economics (more or less by accident), PhD John Hopkins, (1951).



Page 4

Life – Full and Active

- Tragedy- death of first husband and one 18-month old son (bore two further sons) and two brothers.
- Assisting Jews to escape Germany through Switzerland).
- Extensive travelling, with second husband (“Pen”), to include diverse and exciting jobs.
- Fight against McCarthy’s policies, which led to Pen’s “sabbatical” until retirement.



Page 5

Life – Exciting and Fulfilling

- Meeting figures such as Schumpeter (a great influence), Keynes, Robbins, Robertson, A. Robinson and others, all before ‘seriously taking up economics’.
- Work for John Winant at the ILO, US Embassy in Britain, US delegation to the U.N.
- Lecturer and Research Associate at John Hopkins (with Fritz Machlup), Australian National University, University of Bagdad, LSE and SOAS.
- Professor and Associate Dean for Research at INSEAD (retired 1984, upon Pen’s death, moved to Waterbeach, Cambridge, UK).



Page 6

Life – An Active Retirement

- Extensive consulting for government bodies, the energy sector, governments etc.
- Honours from American, British and other European Universities.
- Extensive discussions with friends mainly on the emergent recognition and influence of her work.



Page 7

Life – and (in) Relation to Work

- Work interests, the product of war-time, the post-war policies and her life experiences.
- Close, albeit fortuitous, relation between life and works, for example:
 - 'growth of firm' and 'Hercules Powder', due to Fritz Machlup's project on 'growth of firms ("needed some money, and seemed interesting, nine months on came to realize that neoclassical theory had no theory of firm growth") – major work (The Theory and the Growth of the Firm - TGF) came out of experience with 'Hercules Powder' company.
 - 'international oil industry' and Arab world – Iraq ("no analysis of international oil industry despite its importance").
 - UK, Cambridge - drove from Iraq in old Hillman estate car for interview, got rejected (Robin Marris saw and read TGF manuscript), Readership in SOAS with Asia focus.



Page 8

Life – The Person

- One of few female full professors of her time, on a par with men - by definition.
- Scholastic (due to Pen and Machlup), rigorous, clear, uncluttered thought.
- Totally no nonsense, uncompromising.
- Full academic and personal integrity.
- Never looked back (e.g. at the TGF book), nor 'promoted' her work (even contributed to its non-promotion), pleasantly surprised at its recognition, rarely linked subsequent to previous works (e.g. multinationals and the TGF book).
- Enjoyed a drink (ran after doctor the night before her death to enquire about compatibility between medicine and whiskey) and a good discussion.



Page 9

Works

- Extensive (over one hundred publications in leading economics journals such as AER, EJ) and wide-ranging - from food control, the patent system, the oil industry, Arab countries, international relations, development and of course the theory of the firm, multinationals and organization of industry.
- Major known work, *The Theory of the Growth of the Firm* (TGF).



Page 10

TGF – Some Building Blocks

- Firms (bundles of human and other resources under administrative coordination and communication, producing for sale in the market for a profit), versus market (no 'administrative organization' - 'boundary' defined by 'reach' of administration and communication).
- Firms seek maximum attainable long term profit, under conditions of uncertainty ('weak' profit maximization hypothesis)
- Activities, resources, multiplicity of services, the "image", 'productive opportunity', 'relatively impregnable bases', 'interstices', role of capitalist firm, organizations and institutions in exploiting dispersed knowledge and creating new – "innovations".



Page 11

TGF – The Fundamental Insight

- Intra-firm knowledge-innovation generation (through learning) releases 'excess' resources that managers can put into profitable use at (near) zero marginal cost, engendering endogenous (intra-firm) inducements to growth.



Page 12

TGF – Some Points

- Firms are ‘flesh and blood’ organizations not ‘points on a cost curve’.
- Neoclassical micro theory deals with static equilibrium, not with growth (Edith’s garden), the two are not compatible.
- Firms defined in terms of resources, not products, “diversification” the normal state.
- Endogenous growth, economies of growth, not just scale.
- Direction of expansion determined by ‘productive opportunity’ (the dynamic interplay between perceived internal and external environments) – ex post near equivalence between perceived supply and demands.



Page 13

TGF – Some Points (cont.)

- Limits to growth (but not to size, other than due to control reach), the result of the non-availability in the open market of human (especially managerial) resources, in part due to “experience” (‘tacit’ knowledge) – “the Penrose effect”.
- Resources and ‘experience’ crucial in explaining the uniqueness of firms strategy (horizontal and vertical integration, diversification etc) the nature of competition (god and the devil) and the organization of industry (big business competition and “interstices”).



Page 14

TGF – Influence

- 1960s – Managerial Theories of the Firm”, ‘Penrose effect’.
- 1980s – Resource and capabilities - knowledge-based theories of the firm and business strategy.
- 1990s – ‘Reinvention’ (Loasby) and extension of classical (resource creation) tradition in economics, foundations of knowledge-based economy.
- 2000s – Theory of knowledge, dynamic capabilities, entrepreneurship, international strategic (human resource) management.



Page 15

TGF - Applications

- ‘The Nature of the Firm’ – the result of productivity - innovation capability differences of firms vis-à-vis markets (not just transaction costs - the second major perspective to her resource-based view). The two complementary, as for Coase.
- Multinationals, inter-firm cooperation, optimal growth, industry organization, (even) agricultural products.
- More recently:
 - ‘increasing returns’, endogenous (macroeconomic) growth, economic development
 - Possibility to address coordination and growth, resource allocation and resource creation (Richardson).



Page 16

Epistemology

- Nature, (i.e. perceived internal environment) of firm, crucial starting point in appreciating perceived external one.
- Build theory by observing 'reality'.
- Complementarity between theory and history 'theory is needed precisely because reality is so complicated'.
- 'much of quasi- or non mathematical literature that some people call "theory"... a kind of generalized description of reality" – "not my cup of tea".
- Dynamic interplay between induction and deduction, structure and agency, in the context of a history-informed, path dependent evolutionary dynamic, shaped by conscious, yet path dependent and structure (and change) - moulded actions, in the context of a purposive organization – the firm.



Page 17

TGF and RBV

- TGF influenced dynamic capabilities version of RBV, but not 'rents in equilibrium' one?
 - TGF is about value creation and /for value capture, it focuses on former, but also deals with 'rents' in disequilibrium (the path) and quasi-equilibrium ('monopoly'). All versions of RBV can benefit from this.



Page 18

Other Contributions

- Food control.
- M-form organization.
- Patent system (little recognized, exhibits early interests in monopoly, competition, innovation).
- Multinationals (importance of national borders), multi-nationality, versus multi-locality.
- International oil industry (competition and monopoly).
- Arab countries – Iraq book with Pen, developing countries.
- Relationship between developing countries and multinationals – negotiations.
- Development – ‘infant firms’ and need for (some) ‘protectionism’, ‘dumping’ (endemic), transfer pricing.
- Malthus, stagnation etc.



Page 19

Some Critiques

- 1960s – equivalence between profit maximization and growth?
- 1990s (Resource-Based View - RBV).
- Nature of firm? (Yes).
- Tautology? (No).
- Operationalization and testing (vis-à-vis other theories and perspectives) (Yes, for example M Porter's work on diversification, and many more since, mostly in support).



Page 20

Some Limitations

- Why not sell resources – advantages?
 - As in Hymer, transaction costs etc.
- Why not shed resources?
 - As in downsizing etc.
- Why management most important?
 - As opposed to all ‘human resources’ (e.g. labour in classical economics, entrepreneurs in Schumpeter, etc).
- Why not intra-firm conflict?
 - As in ‘agency’ literature, managerial, behavioural and Marxist theories.



Page 21

Some Generalizations

- Intra-firm knowledge generation can lead to ‘excess resources’ even from an original state of zero excess.
- Addressing intra-firm conflict, an additional inducement to endogenous growth?
- Commodities, and the nature of the Coasean-capitalist firm (Pitelis and Teece, 2009).



Page 22

Managerial Practice

- Sustainable intertemporal value creation and capture at dis-equilibrium and at quasi-equilibrium, through innovation-based competition and/by building (on strength from) ‘impregnable bases’.
- ‘Monopoly’ can only afford short term benefits, in the long term it is innovate or perish.



Page 23

Public Policy

- Support for sustainable big-business competition, small firm creation and growth, no artificial restrictions to ‘interstices’.
 - No ‘optimal market structures’ (e.g. perfect competition, contestability).
 - Consistent with prescriptions for managerial practice (unlike optimal market structures approach).



Page 24

Conclusion

- On balance, endogenous knowledge creation and growth and related overall contribution, proving to be most important in economics and especially in management and international business strategy.
- Role of dynamic capabilities, cross-border co-specialised assets and market co-creation provide scope for further theory development.