
Market Manipulation? Applying the Propaganda Model to Financial Media Reporting

Peter A. Thompson

School of Communication, Unitec in Auckland, New Zealand

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Abstract

Herman and Chomsky's Propaganda Model (PM) has emphasized how the various 'filters' can lead to news reports misrepresenting the vested political and economic interests that underpin US foreign policy. However, there has been relatively little attention paid to the implications of the PM for media operations in another key dimension of capitalism: financial markets. Traders require timely and accurate information about changing market conditions. However, financial news announcements influence investor perceptions and sometimes trigger trading activity that reflexively changes the market conditions being reported. The interdependency of financial reporters, traders and analysts means that financial news production cannot be adequately understood in terms of how the PM filters distort media representations of markets. This article aims to critically analyse how financial news/information does not merely represent financial reality but reflexively constitutes it. The analysis will also highlight which aspects of financial news production are consistent with the PM as well as those that contradict it.

Background: Propaganda Model Debates

There can be little doubt that the Propaganda Model (hereafter PM) developed by Edward Herman and Noam Chomsky (1988) has been one of the most influential and controversial media theories to come out of North America. The PM's basic proposition is that news media coverage is systematically shaped in favour of elite state and corporate interests by the operation of five structural 'filters'. These include ownership arrangements, reliance on advertising revenue, dependency on elite sources, concern to avoid 'flak' (in the form of complaints, lawsuits, career penalization and so forth) and ideological conformity (originally anti-communism, but subsequent revisions include pro-neoliberalism and anti-terrorism).

There is insufficient space to reiterate all the arguments and evidence for and against the PM, but a few key themes should be noted. One source of criticism has been news professionals who find that their understanding of their own motives and institutional practices is at odds with the structural constraints posited by the

PM filters (e.g. see Karl Meyer's defence of the *New York Times* in Achbar et al., 1992). Particularly in North American media scholarship, the empiricist-administrative tradition has traditionally eschewed the normative critique central to neo-Marxist media analyses (see Halloran, 2000; Lazarsfeld, 2004; Stephenson, 1983; Tunstall, 1983). Chomsky's atypical academic prominence as a radical social critic also helps to explain why the PM has been subject to scrutiny and contestation. However, some of the academic debates have, at times, misconstrued the PM as an effects theory, or even lapsed into *ad hominem* arguments (see Brahm Jr, 2006; also Lang and Lang, 2004). Meanwhile, a tone of indignant exasperation has sometimes become discernible in Herman and Chomsky's rebuttals (Herman, 1999, 2000; Herman and Chomsky, 2004).

Among critical media scholars, there is little disagreement that the broad patterns of news representation, especially among private commercial media, are broadly consistent with the PM. The recognition of Herman and Chomsky's work among neo-Marxist media analysts in Europe arguably stems more from their compelling empirical documentation of how US media have systematically misrepresented American military and foreign policy than the PM's theoretical originality or utility in explaining media production. Thus even among scholars who accept the basic validity of the PM's claims, there is recognition that further theoretical refinement is needed (Boyd-Barrett, 2004; Corner, 2003; Sparks, 2007). However, efforts to revise the PM have sometimes provoked spirited reassertions of its validity that have resisted deviations from the original formulation.

The PM was developed to account for observed patterns of media content and purports not to be a theory of media effects but a structural account of media production. It therefore does not follow that its ostensibly accurate predictions of content patterns alone are sufficient to demonstrate its intrinsic validity. Ideally, empirical verification of correlations between the operation of the filters and the predicted content would be required. The emphasis on content has nevertheless remained a prominent (albeit not the only) component of Herman's (1999; 2000) and Herman and Chomsky's (2004) responses to academic criticism of the model (e.g. Golding and Murdock, 1991; Lang and Lang, 2004; Schlesinger, 1989).

This latent tension between the theoretical primacy respectively afforded to the filter mechanisms or content patterns is also discernible in the 2003 PM model debate in the *European Journal of Communication*. Corner suggests that the distinguishing feature of the PM is:

[T]he *extent* to which, in its 'headline' listings, the five factors are assumed to function without much, if any, need for further specification or qualification.... It is then, the scale and directness of control exerted by the filters, of their routinely effective constraint (indeed, closure) on diversity and truth, which is

the hallmark of the model and a key focus in dispute over it. (2003, 369, original emphasis)

But as Klaehn comments in his response to Corner:

I find the central methodological assumptions of the propaganda model highly attractive and this is precisely attributable to the relative ease with which its first-order predictions may be tested empirically vis-à-vis consideration of ‘paired examples’ and ‘boundaries of the expressible’ in media discourse. (2003a, 377–8)

And moreover:

To my mind, the utility of the propaganda model is not lessened because it does not make elaborate predictions which can be empirically tested concerning relationship and process. This is not what the model was designed to do, not what its formulators were concerned to address/theorize. (2003a, 381)

The evidence of content patterns certainly remains a major explanatory challenge to critics who deny any systematic bias in the news. However, where the institutional processes underpinning the filters are the point of contention, empirical validation of the PM cannot be derived solely from studies of content. The implication of the model is that the manifestation of any one of the filter processes would be a sufficient condition for the exclusion of content not aligned to elite interests. However, even if the empirical evidence derived from analyses of news content corresponds to the PM’s predictions (e.g. inconsistent media framing of ‘worthy’ or ‘unworthy’ victims), this does not demonstrate *which* of the filters were operative in any particular institutional context, or, for that matter, whether *any* of the filters are responsible for the observed patterns of content.

This is an important reason why defences of the PM on the grounds that it merely posits a ‘first approximation’ of content patterns, or that it is a structural model of media performance and neither claims nor needs to account for instrumental decision-making or news gatekeeping processes, are unsatisfactory (see Herman, 2000; Klaehn, 2002, 2003b). The argument that the PM does not preclude variations in content inconsistent with the more general patterns predicted by the filters raises *precisely* the question of why they operate in some circumstances but not others. Meanwhile, the argument that the PM is not intended to account for the specific institutional mechanisms through which the filters are (or aren’t) manifested effectively places these internal media processes in a ‘black box’ (Boyd-Barrett, 2004). Thus, in combination, these arguments constitute a defence based on circular reasoning that effectively places the PM beyond empirical or analytical refutation.

If, say, a more instrumentalist or conspiratorial version of media performance that predicted comparable patterns of media content to the PM were posited, then it would not be possible to discern which theory exhibited greater validity by reference to content alone. If the observed content patterns are inconsistent with both theories, then both would be invalidated, but even if they were consistent, then one would be left with two potentially incompatible explanations of the same empirically verified phenomenon.¹ What needs to be debated, then, is not the common dependent variable posited by the respective theories (media content patterns aligned to elite interests) but its specific relation to the independent variable (PM filtering mechanisms vs. instrumental conspiracy).

Defending the validity of the propaganda model's posited filters on the evidence of the content patterns it predicts therefore entails the logical fallacy of affirming the consequent. Specifically, this erroneously assumes that because the filters predict the content patterns, verification of the content patterns confirms the operation of the filters (i.e. $P \supset Q$ does not imply $Q \supset P$). Moreover, insofar as the filters posited by the PM originate from inductive inferences about media production derived from the historical evidence of content patterns, then validation of the theory requires empirical verification of how the *filters* are manifested in institutional processes of news production, rather than just the *content*. In this sense, as a theoretical proposition, one might contend that the 'first-order predictions' of the PM model have been conceived the wrong way round.²

None of this means that the PM is intrinsically flawed in its basic assertions, and of course there is plenty of empirical evidence from sociological studies of media organizations available to support the proposition that the various filters can and do shape news content. But what is not tenable is the generic defence of the model's limited specificity concerning how the filters work by appeals to the empirical evidence of content when it is precisely the nature of the former that is in question. In fairness, Herman has acknowledged that: 'Perhaps we should have spelled out in more detail the contesting forces both within and outside the media

¹ The PM does not deny that conspiracy is possible, and indeed Boyd-Barrett (2004) suggests a sixth filter should take account of the probable instances where news production is compromised by non-routine news practices such as covert penetration of the media by state intelligence services and the 'buying out' of reporters. Nevertheless, as Klahn (2002) suggests, there is a theoretical tension between a rigidly structural account of how the filters are unconsciously internalized by routine news production practices, and instrumentalist/deliberative accounts of how agents in news media consciously respond to various pressures in their gate-keeping decisions. Even if the instrumentalist or 'conspiracy' approach does not contradict the PM, it is nevertheless distinct for the purpose of the analogy here.

² One response to this criticism might be that the PM is merely a descriptive model and does not posit specific independent and dependent variables, but this would reduce its epistemological status to what Corner suggests is 'a broad checklist of downflow tendencies' (2003, 374).

and the conditions under which these [the filters] are likely to be influential' (2000, 111).

This article will argue that closer analysis of the way the PM filters operate in specific contexts is needed in order to develop its explanatory power. To that end, the media's role in the operation of financial markets will be examined. This will highlight several potentially problematic issues which the PM and, more broadly, other political economic analyses of media performance need to account for. These include:

- The complexity of the media's operational alignment to elite interests, particularly among state, industry and finance.
- The conception of media representation and 'filtering', particularly in relation to real-time events where the information the media provide may reflexively influence how those events unfold (and in the case of financial trading may actively constitute rather than passively represent 'reality').
- The relations between news reporters and sources in environments like financial markets where the nature of events means they are often not directly accessible or capable of being defined/rendered meaningful by non-experts.
- Variations in the accessibility and utility of different media for different audiences, especially in financial markets where institutional investors rely primarily on specialist media not generally accessible by the general public.
- Communication systems and global financial markets.

In order to investigate the issues identified above, the relationship between financial markets and communication systems needs to be briefly outlined. The configuration of relations between state, industry and finance underwent an important shift from the late 1970s onwards as the principal mode of post-war capital accumulation changed (Bellamy Foster, 2008; Henwood, 1998; Hope, 2006). Returns on investment in industrial production were under threat as the spatial and temporal inertia of commodity production/consumption in inflationary environments led to diminishing returns. The convergence of computing, telecommunications and other electronic media since the 1970s, in conjunction with financial deregulation (stemming from the demise of Bretton Woods and the macroeconomic paradigm shift away from Keynesian to monetarist policies) underpinned the expansion and acceleration of contemporary financial markets. Facilitated by the new modes of trading made possible by new communication technologies and new financial instruments, together with the relaxation of controls on international capital flows, massive amounts of capital

began to gravitate towards the financial system (Bellamy Foster, 2008; Harvey, 1999; Sweezy, 1997).

The relation of the media to financial institutions is a complex one because media systems are such an integral dimension of their operation. Every day, trillions of dollars flow through the global communication networks. Much of this is speculative finance capital controlled mainly by institutional investors (investment banks, pension funds, hedge funds and other financial corporates). Global capital flows are indexes of the essential agency of capitalism, i.e. to constantly seek new configurations of investment to expedite accumulation and maximize returns. To put this in perspective, the total value of world financial assets increased from approximately US \$12 trillion in 1980 to US \$167 trillion by 2006 (Bank of International Settlements, 2007; McKinsey Global Institute, 2006; 2008). Financial securities were roughly equivalent in value to world GDP in 1980 (109 percent) but by 2006, this ratio had increased to 348 percent (US \$167 trillion in financial market capitalization compared with US \$48 trillion in world GDP), signifying an unprecedented level of financial deepening, i.e. financial market activity as a proportion of global economic production (McKinsey Global Institute, 2008; Wade, 2006). The volume of capital flows has also increased, with several trillions of dollars being exchanged daily in the global foreign exchange markets well as in stocks, bonds and derivatives.³

Communication infrastructures link trading desks around the world to major exchanges and specialized financial media systems like Reuters and Bloomberg not only provide financial actors with real-time information around the clock but also with the electronic interface through which investment transactions are undertaken. New electronic media (notably the internet) have also extended the opportunity to participate directly in the financial system to wider (albeit relatively wealthy) sections of the general public. Global financial markets therefore respond with real-time sensitivity to fluctuations in prices and other market data. The volatility of contemporary financial markets has been underscored by a series of recent crises and panics (e.g. the Southeast Asian currency crisis in 1997–8, the ‘dotcom’ bubble of 2000–1, and the global ‘credit crunch’ which is still unfolding in the wake of the US sub-prime mortgage crisis in 2007–8), which have had significant consequences for the lives of many ordinary people with no direct involvement therein.

³ The daily global market turnover of foreign exchange (forex or FX) and currency-based derivatives has expanded from US \$880 billion in 1989 to US \$3.21 trillion in 2007 (Bank of International Settlements, 2007). While forex markets generate the largest turnovers, other areas of the global financial markets also generate massive trading volumes. In 2006, US \$280 billion was traded daily in equities (GoForex, 2007) while US \$947.3 billion was traded in government bonds (SIFMA, 2007). Meanwhile, by 2007, the overall daily turnover in global OTC derivatives markets was US \$4.2 trillion (BIS, 2007).

Although financial market hazards of this nature are not especially novel, the way financial markets operate and their centrality to the contemporary economy remain both obscure and irrelevant to the vast majority of people. However, when financial crises threaten savings, pension schemes and jobs, civil society may become sensitized to its own exposure to financial risk and how political-economic arrangements intended to accommodate the accumulation imperatives of global capital affect their own lives (Hope, 1998). Public misgivings about the exposure of the lifeworld to financial markets hazards therefore represent a potential crisis of legitimation for capitalism, ironically at the ostensible zenith of its ideological ascendancy.

Financial Markets, Media Systems and Elite Interests

It is well-recognized that information and communication technologies and media institutions are an integral component of the capitalist political economy (see, for example, Calabrese and Sparks, 2004; Golding and Murdock, 1991; McChesney, 2008; McChesney et al., 1998; Schiller, 1999; Webster, 2000). Numerous critical analyses of the communication industries have demonstrated how media corporations have helped to cultivate capitalist/consumerist ideology, legitimate governments or policies expedient to corporate interests and circumscribe the scope of deliberative, democratic participation (e.g. McChesney, 1999; Schiller, 1989). In this regard, the media and communication industries help to provide both the infrastructure and the ideological formations essential for the spatial extension and temporal compression of capitalist accumulation regimes (Hope, 2006; Thompson, 2003).

In Herman and Chomsky's (1988) propaganda model, the media are conceived as a structural component of a closely interlocked nexus of elite power with a common interest in perpetuating the social conditions most conducive to capital accumulation, irrespective of whether these are compatible with social justice or a democratic process. Although the PM does not specify the precise nature of the media's influence on audiences, Herman and Chomsky's account of the filters and examples of systematic misrepresentation of events and issues⁴ suggests that the media play an important role by shaping public opinion (or 'manufacturing consent') and legitimating the actions of governments and corporations. However, as recent market events related to the global 'credit crunch' suggest, potential tensions can sometimes emerge among governments, corporations and financial institutions.

⁴ That is, through framing of issues and emphasis on preferred elite voices/perspectives and/or through the exclusion of alternative points of view or, in some instances, completely ignoring stories where this serves elite interests.

As Sparks (2007) points out, while the general interest in capital accumulation may be common across many capitalist institutions, it does not follow that their interests and agendas are homogeneous or uncontested. There is therefore scope for more nuanced analysis of the political-economic relations that might lead media operations to serve state and corporate interests. Financial market reporting is of particular interest in this regard, since financial institutions such as investment banks, brokerage firms and hedge funds derive the bulk of their profits from investment activities which have an increasingly complex, if not tangential, relation to material industries. Consequently, it is not uncommon for state (de)regulation of economic/financial activity to benefit some capital interests but not others; for example, the removal of domestic trade barriers may benefit exporters but be detrimental to local businesses, and changes in the official cash rate will affect lending and borrowing institutions differently.

Insofar as the PM filters are posited as a manifestation of the news media's structural subordination to elite interests, it follows that they may operate differently depending on the particular configurations of those interests at any point in time. It is therefore unhelpful to conceive the PM in monolithic terms, since different media institutions will be positioned differently in their relations to financial, industry and state actors. On the level of individual media or financial organizations or particular national cases, it can be useful to adopt an institutionalist political economy perspective that can account for the contextual emergence of agency and interests (see Flew, 2006; Hindess, 1989; Pearce, 2000). This need not imply either an overstatement of instrumental agency or a loss of critical focus, but it does suggest that institutional actors often actively respond to each other and engage with regulatory and financial conditions to secure favourable outcomes, including contestation for the legitimacy of particular political-economic arrangements (Thompson, 2007). Such an approach can take account of normative cultural conditions and the contingency of elite interests and their structural power (see Mosco, 1996).

In regard to recent media coverage of the global 'credit crunch', it is clear that there has been considerable variation in both elite opinion and a significant amount of debate and contestation of legitimacy regarding the appropriate policy response. Interestingly, this scenario of policy uncertainty would fulfil Robinson's (2001) criteria for a potential 'CNN effect', where the media are influential in shaping government policy. It is far from clear that this has occurred, possibly because key opinion leaders in the media have conflicting views and do not point to any consensus on policy options. For example, in the US, the Senate initially rejected the US \$700 billion bail-out plan, with opposition coming as much from Republican neoliberals concerned about the moral hazard of state intervention as from Democrats concerned about taxpayers' money being used to subsidize the

financial elite. The policy tension between the ostensible socialization of the financial system and the potential economic consequences of failing to intervene does not correspond neatly with party political interest blocs and arguably creates space for a critique of the financial markets and the neoliberal/monetarist macroeconomic paradigm.

If the PM filters operate as the theory suggests, media representations would be expected to largely avoid negative portrayal of the financial markets and government interventions to rescue the banking sector. However, a cursory examination of media coverage of the crisis in the US and UK suggests considerable ambivalence in regard to reports of government moves to buy out, bail out or otherwise guarantee bank holdings. Some general (i.e. non-financial) media have been quite forthright in their moral indignation at state bail-outs of banks and in their willingness to question whether the financial actors ostensibly responsible for the crisis are being held accountable (see, for example, CBS, 2008; *Daily Mail*, 2008). Consistent with the PM, other general media have reflected discrepancies among elite opinion (e.g. see BBC, 2008; *The Guardian*, 2008; *New York Times*, 2008; also Fox News, 2008a, 2008b).⁵ However, the popular media have, at times, fudged important distinctions between various forms of government bail-outs⁶ (where public money is effectively given to an ailing bank) and buy-outs (where the government acquires ownership of the institution). More specialist financial media have understandably provided more detailed discussion of the crisis and often included a wider range of (expert) views concerning its origins and solutions. Perhaps because of their access to elite market sources or their business audience constituency, financial media reports appear more likely to assume that even if irresponsible banking practices were the cause, it is nevertheless the responsibility of the state to provide solutions. For instance, the hesitancy of the US government to endorse an initial US \$700 billion bail-out package was framed as a failure of policy, suggesting that rescuing the market was an obligation, not an option (see CNBC, 2008; *Financial Times*, 2008).

Whether or not these trends are more generally applicable, the variation in media representations is apparent: different elites are subject to critical reporting among different media. This suggests a need for more detailed consideration of how particular filters align news content with particular state, finance or industry interests, as well as different audience positions (see Sparks, 2007). Although some reports and commentaries have raised ideological questions about the

⁵ Fox News is interesting here because its usual unapologetic support for right-wing conservative/Republican politics and knee-jerk opposition to anything vaguely liberal/Democratic has been rendered narratively problematic; its efforts to find ways to 'blame' Democrats for the crisis or the government's response has been complicated by cross-party divisions on the issue.

⁶ Other major state subsidies to the private sector, notably those related to military expenditure, have not been politicized in the same manner as banking bail-outs.

sustainability of finance capitalism, these have tended towards more mythical or normative suspicions about the excesses of overpaid financiers or the hazards of speculation using Pandora's (black) box of exotic securities such as derivatives, structured investment vehicles or collateralized debt obligations. A key issue conspicuously absent from mainstream media reports, however, is analysis of the economic system's dependence on the private creation of fictitious capital to sustain accumulation, and consideration of non-neoliberal economic perspectives (such as Keynes or Minsky). Although banks have been criticized for unwise investment practices, the role of banks in the creation of money through the issuance of private credit/debt remains largely undebated. This might be explained by the intrinsic complexity of the issues and the limitations of mainstream news genres rather than any structural filtering process. The tendency to default to a monetarist framework and its accompanying discourses to analyse the crisis precludes critical reflection on the validity of its own suppositions. This trend is consistent with the PM supposition that the media are complicit in constraining the formation of public opinion within ideologically acceptable parameters.⁷

However, the financial media play somewhat different roles in the formation of opinion among different audiences. Their function in regard to the general public, policy makers and investors is arguably quite distinct. The author's own empirical study of institutional investor media usage in New Zealand⁸ identified clear differences between publicly available media/information sources and those largely restricted to professionals working in financial institutions, and also between the types of information respectively derived from those media/sources. Perhaps not surprisingly, the study found that more specialist institutional media (such as specialist financial wire services and private analyst reports) were regarded as more important than publicly available media (such as mass media and publicly accessible news sources). However, although a moderate positive correlation was

⁷ Interestingly, professional analyst reports distributed among institutional investment circles (e.g. Mauldin, 2008a, 2008b) often do consider non-orthodox economic perspectives (although few would endorse Marx).

⁸ The findings here are derived from the (forthcoming) doctoral thesis of the author. There is insufficient space to provide an overview of this study, but its empirical component included a survey of the media usage of 65 institutional traders and analysts and semi-structured interviews with 41 financial professionals working in global financial institutions based in NZ. The study also included trading-room non-participant observation at Deutsche Bank, ANZ Bank and the Reserve Bank of New Zealand. The study included analysis of the perceived importance and perceived objectivity of 24 categories of media/information sources as well as the perceived importance of 15 categories of information in the decision-making processes of 65 traders and analysts, all rated on 7-point Likert scales. Subsequent factor analysis identified several variables which included the following compound scales: perceived importance of public media, perceived importance of institutional media, perceived objectivity of public media, perceived objectivity of institutional media, perceived importance of market information (fundamentals and technical data), and perceived importance of reflexive information (non-market data such as prevailing investor sentiment and rumours about other investors' behaviour).

identified between public media/information sources and market information (including fundamentals such company price-earnings ratios, industry trends, and technical price data), no such correlation was found between institutional media and market information. Instead, a moderate positive correlation was found between institutional media and other sorts of 'reflexive' information (including market sentiment, opinions of rival investors, gossip among traders and other non-market news).

This suggests that the perceived importance of institutional media/information sources is not explained by their capacity to supply faster/more accurate information. This seems counter-intuitive, but a large proportion of basic market information is now made publicly available through a wide range of media, and would be distributed symmetrically among institutional investors (and, increasingly, semi-professional day-traders). That informational symmetry means it confers no trading advantage. As one senior Deutsche Bank trader explained, 'No-one gets an advantage from the telly because everyone's got one.'⁹ The trading advantage conferred by more specialist media stems from their capacity to assist interpretation and analysis of market data, including its significance to other traders.

Conversely, public media representations of the fluctuations of stocks and currencies have minimal practical value to either the non-expert audience or the professional investor. This suggests that mainstream financial media play a relatively limited role in informing institutional investors, even at the same time as they are the non-expert public's primary source of information about the economy. The presentation of financial news often tacitly positions the reader either as an informed expert already familiar with financial discourse, or else as a passive observer who is merely invited to acknowledge the symbolic importance of the world of finance, but for reasons the uninitiated cannot comprehend.¹⁰ At the same time, the mainstream media are an important index of both broader public opinion and the views of key opinion leaders in the financial sector. This may be significant for policy makers, especially where legitimacy of different options is contested (see Robinson, 2001). This would broadly support the PM argument that the primary function of public media representations of financial issues is to reinforce dominant ideological/normative assumptions about market ontology and legitimate/naturalize financial policy arrangements (see Greenfield

⁹ From interviews and non-participant observation at Deutsche Bank, New Zealand, 22 June 2004 and 9 June 2005.

¹⁰ This is somewhat analogous to the mediaeval tradition of conducting Christian services in Latin; the layperson is not meant to understand, merely acknowledge the existence of powers beyond mortal comprehension and the exegetic authority of the anointed elite to interpret them.

and Williams, 2001; 2007; see also Krugman, 1994;¹¹ Parsons, 1989;¹² Thrift, 2001). Routine and repeated reference to financial markets in the news media valorizes their mythological status as an elite sphere of society and, increasingly, their salience to our personal lives. This is evidenced in discourses emphasizing the need for individuals to take responsibility for their own financial security.

Financial News and Informational Reflexivity

A further implication of the patterns of institutional trader/analyst media usage for the PM concerns the nature of representation in financial market news. A tacit ontological assumption of the PM is that external events could in principle be accurately represented if not for the distortion of the filters. The conception of filtering as a mechanism explaining news content patterns has been challenged by Corner (2003), who points out that there is an implicit assumption of intervention to modify or select certain pre-existing events/issues/perspectives.¹³ However, it is important to recognize that financial 'events' are not publicly accessible or verifiable in the manner that, say, a military invasion or a political protest might be. Even when financial reporters are present in a stock exchange, financial 'reality' is not directly accessible to the senses and needs to be defined, quantified and articulated by experts before a financial reporter can present them as news (see Corner, 1998; Greenfield and Williams, 1997). The financial world ostensibly being represented is itself shaped by real-time news reports, which significantly complicates any conception of 'filtering' or representation.

The relationship between financial reality and financial information can be considered to be reflexively constitutive on three levels (Thompson, 2003; also

¹¹ Paul Krugman's arguments dovetail to some degree with those of Parsons. He points out that certain economic ideas which became influential tenets of policy sometimes had no compelling theoretical or empirical basis but were popularized by policy entrepreneurs and lobbyists who knew how to work the media. He points to 'supply-side economics' and popular misconceptions regarding the losses of industrial jobs to developing countries as examples, and argues that economic reports may tend to rely on myths and truisms to account for market events rather than have to admit that often nobody really knows why they happen.

¹² Wayne Parsons' historical overview of the relationship between the financial press and economic opinion notes the importance of news media in popularizing and legitimating the economic concepts and rhetoric underpinning key market and policy developments (notably the shift from Keynesian to Friedmanite macroeconomics). Parsons points to the financial media as a key driver of new economic ideas across the respective institutional spheres of market actors, academic economists and policy makers.

¹³ Although Klaehn's response (2003b) argues against construing the PM as a 'gatekeeper' model, Corner's point is that the wider arguments made by Chomsky and Herman suggest a rather different process: specifically, the 'generation and constitution' of media messages within the constraints of the pressures underpinning the 'filters' (2003, 370). Ironically, this is entirely in line with Klaehn's insistence on a structural rather than an instrumental reading of the PM, which suggests he misread Corner on this point.

forthcoming). On an *implicit* or *performative* level, the concepts, theories and discourses deployed by market actors to define, calculate and articulate financial conditions help to constitute and performatively reproduce those conditions (see Callon, 1999; MacKenzie, 2003). For example, the validity of models/systems for calculating the value of abstract securities such as derivatives options depends upon their accepted legitimacy and routine deployment by traders. Similarly, the risk categories ascribed to companies, banks, and various classes of security/debt by the major ratings agencies (Moody's, S&P's and Fitch) not only calculate fiscal risk but actively shape it, because their assigned ratings affect the trading patterns of the securities assessed (see Kunczik, 2002). Moreover, the financial media play an ideological role here by reinforcing the prevailing discourses that legitimate particular financial policy paradigms and regulatory arrangement, and valorize new investment technologies, financial instruments and trading practices (see Parsons, 1989; Thrift, 2001; see also Greenfield and Williams, 2007).

Second, on the 'explicit' or 'transactional' level, the daily movement of market prices and the generation (or implosion) of financial values stems from the aggregate buying and selling of securities through the world's exchanges. The trillions of dollars flowing through the global communication networks every day coordinate the shared meanings and values among market actors across the world in real time. These intersubjective cognitions are inseparable from the displays of information on the trading screens (see Knorr-Cetina and Bruegger, 2002). Trading transactions are themselves symbolic/communicative actions that reflexively constitute shifts in market reality by transforming the legitimate claims of ownership inscribed in the securities/assets traded and also by crystallizing intersubjectively recognized prices (see Graham, 2006; Thompson, 2003). Price movements are typically reported by media as external events attributable to the agency of 'the markets' as if they were an impersonal force of nature akin to the weather. The media naturalize/reify prices and values as objective market facts while the processes underpinning them are rendered opaque and mysterious.

The third level involves 'contingent' or 'game' reflexivity. As the author's study of investor media usage indicated, considerable importance is ascribed to information relating not only to the market fundamentals that (in theory) drive prices, but also to the behaviour and opinions of other market actors. It is important to recognize that it is the aggregate buying and selling actions of financial investors that drives asset prices, and even though real-time access to current asset prices is obviously important, it is the *expectation of future changes* in those prices that motivates trading (Golding, 2003; Henwood, 1998). This means that investors need to anticipate the likely behaviour of other market actors, including how they might collectively respond to financial news and other market-related information. The practice of 'noise' or 'momentum' trading bases trading decisions not on market

fundamentals and standard models but on predictions of how short-term market fluctuations may create trading opportunities.¹⁴

A number of studies have examined investor behaviour and shifts in exchange prices in response to media announcements. Kim et al.'s (1997) study of the New York Stock Exchange and NASDAQ found that prices did not change significantly in response to public media announcements over a period of several weeks, suggesting that in the long-term, prices reflected fundamentals. However, studies of shorter-term price fluctuations indicate that there is a pattern of initial over-reaction to market news, followed by a more gradual 'correction' as prices return from their high/low point towards their original levels (see Busse and Green, 2002; Sant and Zaman, 1996; Vickers and Weiss, 2000). The media have played a dual role in recent increases in price volatility; first, the availability of specialized, publicly available financial media (such as CNBC and various financial internet) have facilitated significant growth in trading by non-institutional day traders who are prone to react to short-term price trends or 'noise' and rumours even from sources with vested interests or dubious credentials (Barber and Odean, 2000, 2002; Brunnermeier, 2003; Frieder and Zittrain, 2006). Second, as Arnuk and Saluzzi (2008) point out, computer-based programme or 'algo' trading systems, especially those deployed by large institutional funds, can increase the frequency and level of price movements because they constantly trade in volume to maintain the proportionality of large portfolio holdings to market indexes (such as the S&P 500). Meanwhile, the increased volatility intensifies the need for real-time news updates of price movements and provides opportunities for investors to anticipate and exploit short-term market reactions to the statements of market opinion-leaders.

Given that financial communication systems provide real-time access to market information to the vast majority of investment institutions and, increasingly, non-institutional traders, so the opportunities to exploit informational asymmetries or price differentials across markets have evaporated. Consequently, there is greater emphasis on monitoring and anticipating the behaviour of other market agents. As Henwood (1998) and Kurtz (2000) point out, all kinds of market 'noise' and rumours can move prices; the impact of market information is not a function of its accuracy or reliability, but a question of whether investors ascribe significance to it in their trading decisions. If enough investors pay attention to a source or a rumour then, at least in the short-term, financial news can generate self-fulfilling prophecies (Sant and Zaman, 1996).

¹⁴ Keynes (in)famously likened financial investment to a newspaper competition which invited readers to pick the winner of a beauty pageant from a set of photographs; to win, one would need to second-guess the criteria assumed by the other voters, rather than select the contestant that one personally considered most beautiful.

Davis's (2005) analysis of media effects on institutional traders in the London Stock Exchange suggested that while there was little evidence of direct effects in the manner assumed in early mass communication models, financial news was found to be influential in other ways: it provides indications of market consensus and what most market analysts are thinking, encourages traders to anticipate/pre-empt market reactions to expected media announcements, and cultivates an environment wherein real-time access to market information accentuates traders' sensitivity to what others in the market are doing thereby incentivizing herd-like behaviour (see also Graham, 2006; Thompson, 2003).

Reporter–Source Relations in Financial Markets

These modes of informational reflexivity significantly problematize the relationship between news representation and market reality and this complicates the PM's conception of how the filtering process might work. One of the issues arising in financial news production is that financial reality is a contingent formation of intersubjective meanings and is not independent of the way it is perceived and represented. Reporters cannot independently verify financial facts; they need to be articulated. Consequently, they rely heavily on institutional finance professionals for expert opinion, particularly market analysts who work for the major banks and trading houses. The increasing complexity of financial trading means that most business reporters, even those working for specialist financial media, are unlikely to have the specialist qualifications or experience of the analysts they use as sources (Lenzner, 1997; Matolcsy and Schulz, 1994). Meanwhile, reporters face the challenge of explaining complex financial processes within the genre constraints of their respective media. For example, one senior bank trader¹⁵ interviewed for the study explained that he was often phoned by reporters seeking explanations for market events. If he was repeatedly pestered, he sometimes resorted to inventing a fictional frame or angle just to keep the reporters happy.

The vast increases in the volume of financial trading and the need of traders to access market information in real time changes the way news is produced. Aronson and Sylvie (1997) found that compressed news cycles and the valorization of real-time reporting allows news workers less time for reflection and increases the risk of 'capture' by sources who actively provide information subsidies in the time-frames newsrooms require. The PM suggests that cultivation of appropriate sources constrains news reporting because of concerns about losing access to information if the news is not aligned to the sources' interests. Palmer et al. (1998), Malmqvist (1998) and Rothkopf (1999) point out that financial

¹⁵ Anonymity requested.

journalists, analysts and raters/auditors may find their independence compromised by pressures to avoid upsetting the institutions they report on, which would clearly be in line with the PM's source filters. Similarly, Kurtz (2000) documents examples of companies threatening to withdraw advertising if their stock prices are harmed by economic reports, even when the news was accurate. Again, the PM advertising and flak filters would clearly be applicable here.

Rothkopf (1999) points out that financial institutions often act upon information which is, by any standard, incomplete or biased. Even independent market analysts and journalists depend on sources in financial institutions or corporations which may have an incentive to supply information which is partial, misleading or expedient to vested interests. Consistent with the earlier points about reflexivity, Rothkopf's analysis suggests that there is a self-referential process at work, whereby traders and analysts and journalists reflexively reinforce each other's perceptions by circulating market information which, ultimately, they themselves generate. Conflicts of interest therefore emerge between journalists, analysts, traders and company managers. As Golding (2003) points out, there was a huge growth in the financial public relations (or IR: Investor Relations) industry from the 1990s onwards. Analysts often work for financial institutions which have a vested interest in promoting stocks of companies in which shares are owned or to which financial services are provided (Davis, 2002; 2007; Golding, 2003). These 'sell-side' analysts may also generate business for their banks from the cultivation of a strong public media profile. A key part of publicly listed companies' PR work is to manage market expectations and ensure that bad news (such as declining earnings) is drip-fed into the media so as to avoid sudden surprises that might panic investors (Golding, 2003), and analysts can play an important role in this.

Consequently, financial analysts are themselves working under institutional pressures akin to the PM filters. The disproportionate ratio of positive stock recommendations compared with negative ones suggests serious compromises in analyst impartiality (Beneish, 1991; Chan et al., 2003; Kim et al., 1997; Kurtz, 2000). This can include flak from client companies, especially for sell-side analysts, which can disadvantage their careers. Indeed, the UK Financial Services Authority itself conducted an investigation into this tendency in the London FTSE. This revealed that analyst recommendations were 80 percent buy, 18 percent hold and 2 percent sell when the analyst was reporting on stocks underwritten by their bank, compared with 45 percent buy, 38 percent hold and 18 percent sell when the analyst was independent. Institutional investors are doubtless aware of the institutional obligations behind many recommendations and interpret them accordingly, although it is possible non-institutional traders would accept them at face value.

What this points to is a curious overlapping relationship between analysts, traders and reporters. The information traders use to make investment decisions is derived from financial media and analyst reports as well as various institutional sources (including networks of contacts with other finance professionals). Analysts also derive their professional information from the financial media and other institutional sources (including the companies they are employed to analyse, if they are sell-side analysts). Meanwhile, reporters derive most of their information from traders and analysts' reports as well as information from companies and investment firms. This suggests that these self-reinforcing flows of information can make market sentiments/perceptions converge and move markets independently of fundamentals, thereby contributing to bubbles and crashes.

Conclusions: Performance and Propaganda

The operational pressures implied by the PM filters apply to financial news production in a number of ways, but they are manifested through particular institutional arrangements that may not apply to other areas of news production. Accounting for the patterns of financial news in the public media requires consideration of the ways in which reporting financial events can be subject to different kinds of constraints from other types of news reporting. The nature of financial events means they are not publicly accessible and require expert definition and articulation. This often places the reporter in a position of relative dependency on elite sources, notably financial analysts working for major financial institutions. Analysts themselves are subject to particular sets of institutional pressures and constraints which are comparable to the PM filters, especially in regard to the need to maintain good relations with corporate clients and avoid flak while cultivating a positive profile for their institution. This means that, in regard to financial markets, the filtering process occurs partially outside and prior to the news production process itself; the sources themselves are constrained in the information they can provide because of their particular institutional arrangements. At the same time, the same corporations employing bank analysts to help promote their shareholder interests will also be major advertisers, so their potential channels of influence over the financial news are twofold.

In regard to the patterning of financial news content and the provision of perspectives conducive to the interests of elites, the PM filtering process varies in relation to different institutional interests within state, industry and finance. When events like financial crises have ramifications for the lifeworld, general media may draw on different opinion leaders and frames in line with the interests of a broader audience, while financial media tend to maintain a greater focus on market frames and commentators in line with their more specialist audience. Media coverage of the current financial crisis has certainly not precluded quite pointed criticism of investment institutions and banks, but the news coverage has not ventured much

into in-depth analysis of deeper structural problems within capitalism or critiqued the monetarist paradigm which has driven the deregulation of finance as a policy priority.

In regard to the issues of representation, it is important to recognize that financial information in the media cannot be understood as simply representative of market reality; on several levels, it is reflexively constitutive of that reality. On one level, financial news helps to perpetuate the discourses that legitimate particular financial policy arrangements and institutional practices, which is consistent with the PM's ideological filter (although this is currently far from homogeneous). On another level, financial news can reinforce homogeneous market perceptions and trigger herd behaviour that can move prices independently of fundamentals. Interestingly, this means that the efficacy of political policy responses to financial crises depends partly on whether the investment community has confidence that the measures adopted are sufficient. The financial media play a potentially important role in cultivating the climate of investor expectations, perceptions and market sentiment that will help determine this. Recognition of such processes complicate the conception of representation and filtering implicit in the PM.

The Herman–Chomsky Propaganda Model raises crucial questions about the structural constraints of news production, and it continues to offer an important analytical tool for understanding these limitations on a basic level. However, in regard to more specific types of news production, such as financial reporting, it cannot account for the complexities underpinning the filtering processes it posits. The defences of the PM based on the 'first approximation' argument and the evidence of systematic bias in content patterns rightly assert its strengths and challenge critics to provide superior explanations of media production processes. However, when coupled together, they risk falling into a circular argument that inadvertently stifles further development of the model to address its weaknesses. Developing a framework of analysis that foregrounds specific regulatory, financial and normative arrangements that form the institutional context of news production, and linking together evidence of content patterns with institutional practices would usefully extend the explanatory power of the PM.

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