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Abstract

Why does a social housing provider bet on interest rate fluctuations? This paper presents a case study of the financialization of both housing and the state. Social housing in the Netherlands is provided by non-profit housing associations that since 1989 have been placed at a distance from the state. Many associations started developing housing for profit, borrowing on global capital markets or buying derivatives. Whereas other semi-public institutions moved into the world of finance due to financial constraints, housing associations moved in to capitalize on the possibilities offered by their asset-rich portfolios. Vestia, the largest of them all, is an extreme—but not an exceptional—case of what can happen when public goals need to be realized by under-supervised and poorly managed private organizations. As a result of gambling with derivatives, Vestia had to be bailed out for over €2 billion. To make up for the losses, housing was sold off and rents were raised. Almost half of the housing associations used derivatives but most of them refrained from using them in a purely speculative way. The changes in the housing sector that led to its financialization cannot be separated from the wider financialization of the state.

Key words: housing, financialization, derivatives, social housing, housing associations, the Netherlands

Introduction

The Dutch social housing association Vestia, and in particular its treasurer De Vries, had built up a derivative portfolio of over €23 billion when, in the summer of 2011, it received a margin call of, first, €400 million, and then, €1 billion. Not much later, it had to be bailed out for over €2 billion. In the end, the financial damage would amount to at least €3 billion, outnumbering those of other well-publicized cases of speculation with derivatives such as that of Nicholas Leeson who caused the bankruptcy of Barings Bank in 1995, resulting in a total cumulative loss of £927 million/€1.25 billion (Brown, 2005). The speculation took place in a setting in which De Vries and Vestia CEO Staal could act almost autonomously: Vestia's supervisory board consisted mostly of friends of Staal, while national regulators were ignored, and accountancy firms neglected the many shortcomings in the annual reports (Hoekstra *et al.,* 2012). But why did a social housing provider bet on interest rate fluctuations in the first place?

The Dutch housing market is heavily financialized. It is well documented how Dutch homeowners are among the most leveraged in the world and how Dutch lenders rely heavily on mortgage securitization (Aalbers, 2008; Aalbers *et al.*, 2011; Engelen, 2015), but the Netherlands is also known for its large social housing sector and in this paper we aim to demonstrate how the financialization of the Dutch housing market extends into its social housing sector. Although the case of Vestia is an extreme one, it is also illustrative of behaviour observed at other housing associations. Social housing in the Netherlands is provided by housing associations, hybrid or 'private non-profit' organizations that provide public services. Although the different local housing associations used to form a *de facto* arm of the state, these organizations were placed at a distance from the national and local state in 1990s—and it is here that we find one necessary but not sufficient explanation for the derivatives debacle, as we will explore in the next section of the paper.

This paper presents a case study of the financialization of both housing and of the public sector. Building on Epstein (2005), financialization is here defined as 'the increasing dominance of financial actors, markets, practices, measurements and narratives, at various scales, resulting in a structural transformation of economies, firms (including financial institutions), states and households' (Aalbers, 2017). As also discussed in the Introduction to this Symposium (Aalbers, in press), the literature on the financialization of housing has so far mostly focused on financialization through credit scoring and securitization (Langley, 2006; Aalbers, 2008; Wainwright, 2009), through the widened access to mortgage loans (Aalbers, 2008; Fernandez and Aalbers, 2016; Montgomerie, 2009; Rolnik, 2013) and more recently, through private equity funds buying up subsidized rental housing or social landlords (Aalbers, 2016a; Aalbers and Holm, 2008; Bernt *et al.*, in press; Uffer, 2014; Fields, 2015; in press). Vestia and other housing associations in the Netherlands are cases of the financialization of social housing providers through derivatives, something that also takes place in the UK (e.g. Beever and Struthers, 2014; Allen, 2015) and possibly elsewhere, but to our knowledge, no academic studies exist on the financialization of social housing providers.

The changes in the housing sector that led to the financialization of Vestia and other housing associations cannot be separated from the wider financialization of the state. The state in its broadest depiction, including municipalities and counties (Pryke and Allen, 2000; Hendrikse and Sidaway, 2013; Lagna, 2015) and semi-state institutions operating at-arms-length such as utilities (Allen and Pryke, 2013; Ashton *et al.*, 2016), infrastructure (Torrance 2008; O'Neill 2013), health care (Pollock 2004; Acerete *et al.*, 2011) and education (Jakovljevic *et al.*, 2008; Engelen *et al.,* 2014) witnessed processes of financialization in conjunction with broader transformative developments in the age of the neoliberal restructuring of the welfare state (i.a. Clayton and Pontusson, 1998; Brenner and Theordore, 2002; Swank, 2002). This body of literature revolves around the infiltration of these (semi-) public institutions by financial managerial techniques and their gradual enmeshment in an ecosystem of consultants, investment bankers and accountants through debt and derivatives transactions. In the words of Pryke and Allen (2000: 272): 'derivatives have moved to the centre of mainstream finance.'

The changing landscape of the 1980s and 1990s characterized by large-scale privatization and decentralization programs and the increasing dominance new public management produced a new normality in the organizing principles of public institutions, state entities and statesmanship. The growing financial constraints that resulted from the "hollowing out" of the state (Jessop, 2002), left atomized public entities, outside the protective shelter of the state, that were receptive to the solutions that financial intermediaries advocated. This process was clearly visible in the financialization of the University of Amsterdam (Engelen *et al.,* 2014). Through an austerity measure concealed as "decentralization", real estate was transferred from the national state to underlying public entities varying from hospitals, police stations, primary and secondary schools, and universities. This transfer of ownership and responsibilities was not accompanied by the necessary funds, which therefore resulted in the need of individual entities to seek alternative financial solutions. The transfer of real estate

acted as a Trojan horse: it was the vehicle that opened the scope to adapt to the financialized organizing principles of banks.

The literature provides a number of accounts of municipalities falling deeper into the rabbit hole of finance. Municipalities have always been involved in emitting debt and receiving loans from banks. Financialization entailed the move towards more sophisticated techniques, such as derivatives instruments to manage interest rates and risk (Hendrikse and Sidaway, 2013) or reconfiguring the governance of municipal entities into private or public private partnerships to capitalize on future income streams of public services and utilities (Allen and Pryke, 2013; Ashton *et al.,* 2016; Whitfield, 2016). While the cases of Chicago and Pforzheim, but also that of the University of Amsterdam, point to financialization as a strategy to deal with budget constraints, Dutch housing associations were primarily motivated to exploit their housing stock. These asset-rich organizations were confronted with a changing financial landscape that increasingly provided them with instruments to use their balance sheets in unconventional ways to lower costs or increase income. The financialization of Dutch housing associations is therefore more a tale of opportunities than one of constraints, comparable to Norwegian municipalities that transformed the revenues from their hydroelectric resources into complex, risky financial investments (Aalbers, 2009; Pani and Holman, 2013).

In the next section we will discuss the housing associations' changing regulatory landscape. This should not be read as evidence of financialization, but rather as a description of institutional change that created the conditions for financialization. In subsequent sections we will discuss the case of Vestia, starting from a public housing authority in the 1980s and its mergers with several private housing associations in the 1990s, and culminating in its bailout in 2011. We will also discuss how widespread speculation with derivatives was among housing associations as well as the consequences of Vestia's bailout, both at the level of Vestia's housing stock and the national social housing sector. Financialization of housing associations through derivatives was widespread although nowhere near as excessive as at Vestia. Finally, we will explicate how our paper contributes to the literatures on the financialization of, respectively, housing and the state.

The Regulated Deregulation of the Dutch Housing Market

Few countries in the world have built as many social housing units as the Netherlands, proportionally speaking. The Dutch Housing Act of 1901 created the so-called *toegelaten instelling* (empowered institution—somewhat similar to a registered landlord in the UK), a private organization without commercial interests dedicated to building and managing social housing and allowed to apply for government subsidies (Beekers, 2012). In Dutch these hybrid institutions are known as *woningcorporaties* with literarily translates to "housing corporations" although "housing associations" is a more appropriate term. These days, the Netherlands has about 380 housing associations that together manage 2.3 million out of a total of more than 7 million dwellings (see Table 1).

Table 1 Housing stock in the Netherlands by tenure (%), 1986-2012
Source: Ministerie van VROM, 2007; DG Wonen en Bouwen, 2015

Tenure/sector	1986	1995	2005	2012
Owner-occupied	43	48	55	60
Private rented	28	17	10	9
Social rented	29	35	35	31
Total number	5,400,000	6,200,000	6,800,000	7,250,000

Many housing associations were founded in the first decades of the twentieth century. This was the era of *verzuiling* (pillarisation), a time when virtually all social and cultural institutions were organized along socio-religious lines (Lijphart, 1968). In most cities this resulted in the founding of Catholic, Protestant, Liberal and Socialist housing associations. Whereas social housing in the early twentieth century was primarily intended for the educated working class, housing associations significantly expanded their arena after 1945: social housing became the norm, the standard, for the majority of the population. The Dutch national government took the lead in designing and implementing interventionist public policies, which resulted in the development of a strong, nationally coordinated welfare state. Social housing was an important element in the development of the Dutch welfare state. Between 1945 and 1970 more than two-thirds of all new construction was in the social housing sector (Ministerie van VROM, 2007), tempting Harloe (1995) to speak of the Dutch social housing model as a "mass model", in which subsidized rental housing was built on a massive scale for "the masses", i.e. for both lower- and middle-income groups, thereby reducing private rented housing to a small sub-sector (see Table 1).

The housing associations became the lynchpin in this new housing and urbanization policy. Indeed, housing policy was deeply embedded in "spatial Keynesianism" (Brenner, 2004). Although the housing associations were privately regulated institutions, they became increasingly subject to public regulation (Salet, 1999) in the sense that (1) central government determined rents and set very detailed building requirements through subsidies and loans; and (2) local government determined the choice of architect, the manner in which contracts were tendered, and also handled the supervision of construction. Local government also took charge of housing allocation, in particular via municipal public housing authorities that existed alongside the private housing associations and owned thousands of council houses (Bazlinton, 1999; Dieleman, 1999).

The government's role changed in the 1980s. Growing national government deficits led to severe austerity policies. Furthermore, the extensive web of housing subsidies, that also funded private landlords, had increased to 10 percent of the state budget in the late 1980s, thereby attributing to a state deficit too high to meet the requirements for entering the European and Monetary Union (EMU) (Beekers, 2012; Verbraeken, 2015). With the white paper *Housing in the Nineties* (1989), the Dutch government took a radical step away from the idea of a social housing sector for the masses and called for a retrenchment to the "core task" of the state: ensuring decent and affordable housing for so-called "target populations".[1] The white paper calls for construction subsidies to be scaled back, social housing units sold off, rents partly "liberalized" and homeownership promoted.[2] The 2000 white paper pushed even more strongly in the direction of privatization. The 1989 and 2000 white papers were implemented through a series of policy directives and additional measures, in particular the relaxation of mortgage-borrowing conditions, were put in place to stimulate home ownership (Aalbers, 2008).

In the 1990s the housing associations were cut loose from the national government. A first step was the implementation of the *Besluit Beheer Sociale Huursector* (BBSH, or "Resolution Management Social Rented Sector") that introduced the possibility of professional, remunerated directors, which resulted in additional layers of not only directors but also other well-remunerated managers.[3] The part of the BBSH that prescribed "sober and efficient"

[1] I.e., to those who are unable, for financial reasons or otherwise, to obtain adequate housing on their own. The exact operationalization of this definition changes through time and is beyond the scope of our paper, but primarily includes low- and moderate income groups.

[2] Until the early 1990s, the idea of selling social housing was virtually unspeakable in Dutch politics (Boelhouwer, 1988; Frissen *et al.*, 2001). This began to change after the Labour party joined other parties' preference for privatization, exemplified by the publication of the Labour-Liberal national government's 2000 white paper on housing.

[3] Between 1994 and 2006 the number of employees increased from 18,000 to 25,000 (Onderzoeksredactie, 2013).

governance was largely ignored. At the same time, the legal status of many housing associations shifted from associations and local housing authorities to foundations, creating greater independence and limiting the active tenant participation in housing governance.[4] It became increasingly difficult for internal and external supervisors to influence the behaviour of housing CEOs (Beekers, 2012).

The most important change was executed through the *brutering* (grossing) or *operatie balansverkorting* (deleveraging operation) of 1995 by which the operating subsidies for years to come (€15.9 billion) were cancelled out against government loans (€18.6 billion) (Boelhouwer and Priemus, 2014). The idea was that the deleveraging operation would create a revolving fund which the independent housing associations could rely on and without the need for state support (Beekers, 2012). Although only a few financial ties between the government and the housing associations remain, there are still a lot of hidden subsidies involved. Furthermore, the *Waarborgfonds Sociale Woningbouw* (WSW), the AAA-rated "Social Housing Guarantee Fund", guarantees loans for the development of new social housing, thereby enabling housing associations to borrow at favourable conditions from two state banks: the Bank of Dutch Municipalities (BNG) and the Water Authorities Bank (*Waterschapsbank*).

In 2007 the WSW shifted its system from guaranteeing loans for specific projects to a general guarantee on the activities of housing associations, in effect allowing the associations to use the borrowed money for all kinds of activities, including commercial real estate projects, land speculation and, as the next section will show, speculation with derivatives. While the WSW is a non-state entity governed by the housing associations themselves, the *Centraal Fonds Volkshuisvesting* (CFV, Central Housing Fund) is a state institution supervising the sector. Its main task is preventing housing associations from getting in financial difficulties. Nevertheless, the CFV is poorly equipped for doing so as their only power over a housing association is to send a letter to the supreme supervisor, the State Secretary of Housing. When financial difficulties arise, the CFV will attempt to solve these through the remediation support fund to which all housing associations have to contribute.

It is important to pay attention to the shifting local government/housing association-relation. Many housing associations, partly as a result of mergers, expand their geographical scope beyond one municipality. Consequently, strong ties between municipalities and housing associations have typically become loose ties. By cutting financial ties with the housing associations, and by deregulating the housing market, the government also lost part of its control over the housing associations. As long as housing associations meet their public duty[5] they have a considerable degree of discretionary power. Consequently, housing associations located in areas where real estate values increased strongly between the mid 1990s and 2008 became very wealthy, allowing them to use their real estate, often worth billions of euros, and related cash flows as collateral for new loans and investments. It is here that some housing associations moved in to capitalize on the possibilities offered by their asset-rich portfolios.

Paradoxically, many municipalities have increasingly come to rely on housing associations to realise urban planning, social and economic policy goals, including urban revitalisation, gentrification, job training programmes, and social and physical infrastructure. Also, many local politicians, especially those of the Labour and Christian-Democratic parties, became members of their local housing associations' supervisory boards, creating new connections between local state and social housing sector. Some housing associations also support each

[4] For the sake of clarity, we will continue to refer to these housing foundations as housing associations.

[5] The housing associations public duty is to prioritize the housing policy target population, improve the quality of the housing stock and the housing environment, give tenants a voice, and provide housing-and-care arrangements, while guaranteeing financial continuity.

other financially.[6] Furthermore, a significant minority of housing associations ventured into more exotic adventures: some constructed (or helped to construct) social housing in South Africa and Suriname, another one built a bridge, and yet another restored a former ocean-liner for €220 million in order to create jobs, job training programmes and promote cultural heritage—all under the banner of the associations' "social obligations" towards their communities.

Housing associations are now expected to formulate their own policies on financial continuity, investment, rental policies and housing for target populations. Increasingly the housing associations have become important players in the land and development market and they are often among the largest developers in their respective local markets. Many also started developing owner-occupied housing and commercial real estate. This way, housing associations play a role in creating mixed tenure and mixed income communities. Rather than retreating to their "core task", housing associations actively try to maintain a strong market position and avoid becoming landlords operating merely at the bottom of the housing market (Uitermark and Bosker, 2014). It is often argued that the profits out of commercial activities are put back into the housing needs of lower income residents, but this is only possible when projects are profitable, which, since 2008, is increasingly not the case. Finally, as housing associations receive state guarantees, new rules from the European Commission in 2011 set in motion the separation of the financing of their commercial from their social activities leading to complex administrative changes.

On the one hand, the responsibilities of the housing associations were tightened by the stipulation that they primarily provide housing for the target population defined by national government policy. On the other hand, the policy scope of these "empowered institutions" was expanded through "regulated deregulation" (Aalbers, 2016b) in which the associations gained room to act freely but were at the same time regulated by a new set of often poorly defined rules, codes, state guarantees and institutions. This messy institutional setting offered perfect conditions to expand their activities but it also created the conditions for the financialization of housing associations. The opportunities for conducting their own financial policy were also expanded, including the use of financial reserves for their "social obligations".

The housing associations also became responsible for debt-related risks, which implied that they became very interested in the development of interest rates as well as in products to manage related risks. Many associations started developing housing for profit and several of them also started adopting more complex financial techniques, such as lending money to other associations, borrowing on global capital markets and buying derivatives, despite the fact that cheap credit was available through guaranteed loans provided by state banks. As we will see in the next section, important elements of this behaviour are the lack of internal and external supervision and regulation, self-enrichment of persons in higher management (often through fraud), and engaging in complex activities—in particular financial and commercial real estate development—that were poorly understood by both management and supervisors.

[6] A cash-rich and well-managed rural housing association from Groenlo, in the east of the Netherlands, for example, not only merged with several cash-poor associations from nearby town and cities, but it also financed the renovation of a social housing estate in the city of Delft in the west of the country.

The Case of Vestia

> "My Supervisory Board has only one task: it appoints and dismisses me. Otherwise, I decide myself." (CEO Erik Staal in Verbraeken, 2014, our translation)

This section on the Vestia case is based on a thorough reading of the report of the Parliamentary Commission of Inquiry (Tweede Kamer, 2014a), transcripts of the interviews of the parliamentary hearings (Tweede Kamer, 2014b), a study for the parliament on the supervision and regulation of housing associations (Hoekstra et al., 2012), two books of financial journalists who interviewed many key actors (Smit, 2014; Verbraeken, 2015) and our own interviews with people in the Dutch housing sector, either as part of a related research project (2013-2015) on the changing nature of Dutch real estate (Van Loon and Aalbers, 2017) or based on personal contacts (mostly 2011-2015).[7] We construct our narrative around a critical reading of these primary sources. Whereas the previous section emphasized structure over agency, this section will highlight the agency of Vestia's CEO and treasurer. Of course, their agentic capabilities could only develop in the changing context described above. Table 2 displays the key moments in the development of the Vestia case. The scale of the events at Vestia is exceptional, but the reliance of housing associations on derivatives is widespread as was revealed after the bailout of Vestia (CFV, 2012),

Table 2 Significant moments in the history of GWB and Vestia (excluding mergers)
Source: Tweede Kamer der Staten-Generaal (2014a), edited by authors

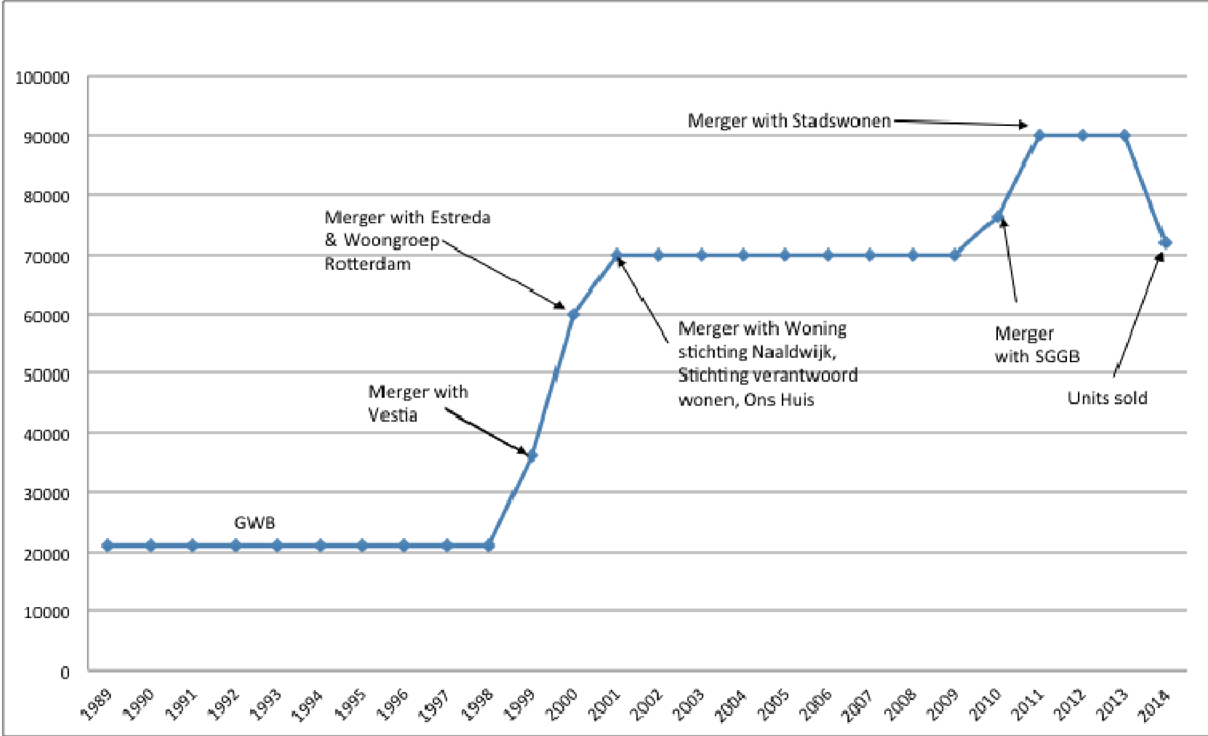
1989	Erik Staal appointed as director of GWB
1992	Privatisation of GWB
1995	The national deleveraging operation
1999	First derivatives contract
2002	De Vries appointed as treasurer
2005	First (more speculative) derivatives contracts with foreign banks
December 2008	Sharp interest-rate decrease
2009	ING, later followed by the other Dutch banks, stops selling derivatives to Vestia
2009	Negative market value of derivatives appears in the annual report
September 2011	Liquidity problems of Vestia, as a result of margin calls, become known by WSW and CFV
2011	WSW (temporary) stops guaranteeing new loans
October2011	The total size of the derivatives portfolio becomes clear
December 2011	CFV puts Vestia under close scrutiny, breach of contract terms become clear for supervisors
January 2012	Problems with derivative-portfolio become public, Staal resigns
February 2012	Most toxic derivatives are transformed into normal loans at the cost of €700 million
April 2012	De Vries is arrested
May 2012	WSW acquires collateral and Vestia stops paying margin calls
June 2012	Agreement with banks to pays of all Vestia´s obligations related to the derivatives for €1.9 billion
July 2013	Vestia receives financial support from CFV´s remediation support fund after adopting severe measurements (e.g. selling rental units)
2014	Parliamentary Commission of Inquiry

[7] This section only refers to these sources when using direct quotes, when relying exclusively on one particular source or when presenting numbers.

In the first twenty years of his career, Erik Staal was an ambitious civil servant responsible for a number of restructuring operations, such as the privatisation of the municipal printing office of the City of The Hague. In 1989, the year of the national government's white paper *Housing in the Nineties*, Staal became the director of GWB (*Gemeentelijk Woningbedrijf),* the city's public housing authority, the largest landlord of The Hague, which then managed some 20,000 units. In the late 1980s the GWB was in a bad financial state and many of its housing estates were poorly maintained and difficult to let. Staal's mission was to privatize GWB and create an independent and financially sound housing association. In 1992 the public housing authority was formally privatized and transformed into a "housing foundation". Its balance sheet included €42 million of debt, but also €450 million in real estate assets and €29 million in seed money. Soon Staal was lending money to other housing associations and using loopholes in the municipal land register to add more land to GWB's holdings. Moreover, he negotiated an arrangement in which the municipality kept providing GWB with cheap credit, thereby creating additional liquidity of about €14.5 million annually (Verbraeken, 2015: 24).

Under the management of Staal, privatized GWB expanded heavily into large-scale urban revitalisation projects, in which GWB not only constructed new social housing units but also commercial real estate as well as health care and educational spaces. In certain districts in which GWB had a strong presence, Staal claimed a monopoly on the revitalisation plans, which he completed to the satisfaction of most local stakeholders and politicians. Building on his success as well as GWB's sound balance sheet, Staal initiated a series of mergers with other housing associations, starting with the 1999 merger with a housing association named Vestia that was active in the City of Delft and in Zoetermeer suburb of The Hague. After the merger, the new housing association took Vestia's name but GWB's CEO and philosophy. Eight more mergers followed in the subsequent dozen years and Vestia expanded from just over 20,000 housing units in 1989-1998 to almost 90,000 units in 2011, making Vestia the largest housing association in the Netherlands (see Figure 1).

Figure 1 Number of residential rental units owned by GWB and Vestia
Source: based on data from Tweede Kamer der Staten-Generaal (2014a), edited and completed by the authors



Staal's salary and power as CEO expanded with every merger, while he stocked the supervisory board with personal friends. Managing 90,000 housing units, Staal also engaged in other business activities, including his partnership in a consultancy firm DJC that charged Vestia over one million euros for its services (Verbraeken, 2015). Staal became the poster child for the professionalization of the social housing sector, praised for his prowess, legal and financial aptitude and ability to get things done not just commercially, but also in providing affordable high-quality housing and state-of-the-art school buildings: 'Even the external regulators see no problem in the largest association being run as a sole proprietorship' (Smit, 2014: 43, our translation).

By the late 1990s Vestia had already become a large property developer, constructing up to 1000 units by investing €150-170 million annually (Smit, 2014). In the spring of 2011 Staal bragged 'Finance is our core business ... We know the financial markets, minute by minute' (Cobouw, 2011). In fact, Staal himself did not have much knowledge of finance. The appointment of Marcel de Vries in 2002 as treasurer had set in motion the transformation of Vestia from a social housing management agency and property developer into a derivatives-trading house. Staal assigned De Vries a large amount of discretion in running Vestia's finances and sheltered him from any interference from the supervisory board, keeping crucial financial information out of their reach. Although De Vries was trained as an accountant and had no formal training in complex financial products, he started to use Vestia's assets more fully as collateral to buy derivatives.

In his first years as treasurer De Vries bought derivative contracts from ABN Amro and Fortis bank to mitigate interest rate risks related to the many real estate development projects of Vestia, thereby considerably reducing Vestia's exposure to risk. In 2005 the first foreign bank, Deutsche Bank, appeared on the scene and immediately started offering more complex products at more favourable terms, such as higher thresholds for margin calls[8], thereby further widening the possibilities to buy new derivatives. Deutsche and other foreign banks also went to great lengths to please De Vries as a client, taking him to prestigious sport events, and dinners with escort girls. While interacting with these financial actors, and reading some financial brochures, De Vries started to believe that the then-current interest rate was so low that it could only go up. To capitalise on this, De Vries started to trade in more complex and speculative types of derivatives.[9] Many of these contracts temporarily lowered interest rates for Vestia, but would raise costs considerably if market interest rates would decrease further (Tweede Kamer, 2014a).

Until 2008 nobody, not even their house bank, warned Vestia that its short-term low interest rates introduced major future risks. Moreover, until 2010 the accountants of Vestia (first Deloitte, then KPMG) assessed the derivatives solely on the basis of their costs. As a result, the negative values, the result of decreasing interest rates, did not appear on the balance sheet or the profit-and-loss statement. The enormous potential risks remained hidden for internal and external supervisors and regulators. Instead, the banks and regulators praised Vestia and its treasurer. Moreover, the sector's guarantee fund WSW started to promote the use of derivatives to other housing associations, allowing almost every derivative contract housing associations entered into. Yet no housing association went as far as Vestia: by 2011 De Vries had built up a derivatives portfolio of €23 billion (Tweede Kamer, 2014a; Hoekstra et al., 2012).

The first signs of the fall of Vestia appeared in late 2008 when, as a result of a sudden decrease in the interest rate, the negative value of Vestia's derivatives portfolio increased to €762 million. However, as Vestia had a buffer of €1 billion in liquid capital, it was able to respond to the banks' margin calls to provide more collateral. Slowly, the regulatory authorities started to become a bit more critical and now asked housing associations to

[8] The obligation to transfer collateral when the negative market value of a derivative contract reaches a certain level.
[9] Including "interest rate swaps", "writing swaptions", and "cancelable swaps".

report on their derivatives portfolios every three months. However, Vestia refused to do so and also did not answer the regulator's queries about their derivatives portfolio. Dutch banks, that had only sold non-speculative derivative contracts to Vestia, started to pose more critical questions and they discovered that Vestia had bought very risky derivatives from foreign banks. In 2009 and 2010 all Dutch banks stopped selling derivatives to Vestia and sold parts of their portfolios to foreign banks. The Dutch banks' critical reversal and partial withdrawal did not tempt Vestia to revise its financial activities. On the contrary, Staal allowed De Vries to double the derivatives portfolio to €17.5 billion in 2010. Some of these new contracts with the London-based offices of foreign banks ran till 2065 (Tweede Kamer, 2014a; Vestia, 2015b).

In the summer of 2011 interest rates fell rapidly, thereby increasing the negative market value of the derivatives portfolio, which resulted in additional margin calls. To force Vestia into opening its books, WSW decided to stop guaranteeing new loans. Despite the urgency—banks' margin calls demanding collateral from Vestia increased from €400 million to €1 billion in September 2011—Vestia was unwilling to cooperate, even after the State Secretary of Housing was informed. The financial consultancy firm Cardano was hired by the State Secretary to make sense of Vestia's more than 400 derivative-contracts with 13 banks (see Table 3). Cardano concluded that Vestia's portfolio was extremely sensitive to interest rate changes: 70 percent consisted of speculative derivatives, while risk management was completely lacking. De Vries managed the entire portfolio via an Excel sheet that contained many errors. Meanwhile, De Vries expanded the portfolio to €23.6 billion. He believed that a future increase in interest rates was a certainty and would compensate for the current negative market value of the derivatives portfolio (Tweede Kamer, 2014a).

Table 3 Derivative positions of Vestia, December 2011 (in millions of euros)
Source: Adapted from Verbraeken (2015: 238)

Bank	Total nominal value derivatives	Negative market value	Threshold	Margin call
Deutsche Bank	4200	-498	150	348
Citibank	3700	-105	50	55
ABN Amro	3200	-373	150	223
Barclays	2700	-85	50	35
BNP Paribas	2400	-174	100	74
Nomura	1400	-67	50	17
Credit Suisse	800	-61	50	11
Rabobank	750	-83	50	33
JP Morgan	700	-156	200	-
Sociéte Générale	500	-29	50	-
ING	160	-10	-	-
BNG	100	-37	-	-
DEPFA	Unknown	Unknown	50	Unknown
Total	**20610**	**-1678**		**796**

In November 2011 Vestia was put under guardianship. The banks could have considered more far-reaching actions such as firing Staal or de Vries for breach of contract, which would have allowed them to dissolve all derivative contracts at once and demand the negative value of both the contracts and related loans—but this would have resulted in bankruptcy for Vestia. Hence, Staal was allowed to stay on. In the meantime, the new State Secretary of Housing, Liesbeth Spies, is appointed and she aimed to solve the Vestia problem by making

the other housing associations pay for the fallout. According to Spies, Staal was unwilling to cooperate and simply told her: 'If you make sure interest rates rise, we'll be out of trouble in no-time' (Spies in Smit, 2014: 121, our translation). After arranging an additional pension provision of €3.5 million on top of his annual salary of about €500,000 Staal agreed to resign. The incoming, temporary CEOs of Vestia, Erents and Thielen, immediately decided to restructure €1.7 billion of complex derivatives into regular loans with a fixed interest rate, at a cost of €700 million. Furthermore, the government allowed the Central Housing Fund to collect 5 instead of 1 percent of the annual rental income of housing associations for the collective "safety net" (Smit, 2014; Verbraeken, 2015).

Still, the banks were not willing to cooperate because a bankruptcy of Vestia would have been extremely beneficial to them, as it would have resulted in a transfer of Vestia's real estate to them in the form of collateral. That would have been a welcome additional profit on top of the estimated €600 million of profits on the derivatives contracts. However, to force the banks into negotiation, the WSW executed its first right to collateral. This came as a big surprise to the banks, and the CEO of ABN Amro, a state-owned bank since the crisis of 2008, threatened the State Secretary that his bank would stop financing *all* housing associations. Another large Dutch bank, Rabobank, immediately emptied all bank accounts of Vestia loans. After a couple of months of tough negotiations, all banks listed in Table 3, except Credit Suisse, agreed to a solution in which the remaining negative market value of all derivatives, valued at €1.9 billion, was transformed into regular loans (Vestia, 2015b).[10]

To be able to repay its debt, Vestia initially sold off many development projects to municipalities or other housing associations (Verbraeken, 2012). In 2014 Vestia presented its restructuring strategy for 2014-2021: the aim is to decrease operating expenses (including staff costs) by 15 percent, sell 32,000 of its more than 90,000 housing units, and to maximize the rents for social and commercial units when they become vacant (except when there is a "social reason" to make an exception) (Vestia, 2015b).[11] The problem, according to one Vestia manager who we spoke to in 2015, is that in some of the market areas in which Vestia is active, for example Rotterdam-South, the units with higher rents remain vacant and the required sales prices cannot be realized, resulting in higher vacancy rates, reduced income from rent and longer sales periods.

By February 2015 Vestia had already sold almost 13,000 units: 5500 to Patrizia, a German real estate investor, for €577 million and 6000 student rooms to another housing association, Woonstad. Since Vestia is the largest landlord in the Rotterdam-The Hague metropolitan area, this will have a considerable impact on the regional housing market. However, as the result of Vestia's loan portfolio and continuing low interest rates, it has become difficult to sell units in order to repay debt. At the time of writing, Vestia is rethinking its sales strategy (Vestia, 2015b). In addition, the Central Housing Fund has labelled Vestia insolvent, making it extremely difficult to get credit to finance new projects. In effect, Vestia has refocused around its core task, providing housing for low-income groups (Vestia, 2015a).[12] Furthermore, Vestia has pressed charges against Staal, De Vries and eight members of the Supervisory Board for irresponsible management and banking regulator AFM has fined ABN Amro €3 million for miss-selling to Vestia. In October 2015, ABN Amro and Vestia reached a settlement in which ABN Amro paid Vestia €55 million (Heijn, 2015).

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[10] €675 million of which would be paid over the next decade by all other housing associations through the remediation support fund of the CFV. Yet, the remaining €1.267 billion had to come out Vestia's pockets increasing its debt to credit institutions to €5.6 billion in late 2014. This loan portfolio had an average interest rate of 4 percent, a long maturity and many loans lacked early redemption possibilities. Therefore, when interest rates remain below 4 percent from 2017 onwards new financial problems can arise (Vestia, 2015c). Consequently, the costs for all other housing associations could increase with hundreds of millions (Dohmen, 2014).

[11] In 2011, Vestia on average charged 87% of the legal rent for social housing units, but for new tenants this has increased to 95% for new tenants (Verbraeken, 2015).

[12] I.e. households earning less than €34,000 annually.

Discussion and Conclusion

The Dutch housing market is heavily financialized, not only because its homeowners are the most leveraged in the world and its mortgage portfolios increasingly securitized, but also because many Dutch housing associations rely on derivatives to manage—and thereby potentially increase—their financial risks. The housing associations, who manage the social housing stock, were gradually placed at a distance from the state. Many housing associations merged into ever-larger organizations that subsequently branched out into for-profit housing and real estate development. Several of them also started borrowing on global capital markets and bought derivatives. The example of Vestia, the largest housing association, presents an extreme—but not an exceptional—case of the financialization of a social housing provider. As a result of gambling with derivatives, Vestia had to be bailed out for over €2 billion. To make up for the losses, housing was sold off and rents were raised.

To banks, derivatives are lucrative products to sell because the commissions are high and all risks are typically transferred to counterparties or covered by collateral. In the case of Vestia, banks first relied on the real estate and financial assets as collateral. The state system surrounding housing associations appeared to offer them full security. Loans, and later also derivatives, were guaranteed by non-state WSW (Social Housing Guarantee Fund) and Vestia's equity by state institution CFV (Central Housing Fund).[13] Derivatives can be a useful instrument to decrease interest rate risks and therefore can function as a form of insurance. Indeed, a board member of another large housing association told us in 2011: 'Of course we have derivatives. Every large housing association has them—or at least, should have them.' However, derivatives can also be used in a speculative manner, for instance when a housing association bets on interest rates far beyond the interest rate risks that is faces. Housing associations are prohibited from speculation with derivatives, something that the regulator CFV, appeared unaware of, even after the 2001 debacle in which a housing association lost €33 million through complex financial products (Berentsen, 2014).

The case of Vestia highlights problems surrounding self-regulation, the extensive freedom of housing association CEOs, mismanagement and financial losses. The CFV first reported that Vestia was part of a small group of approximately 20 housing associations that had entered into derivative contracts, but it soon had to admit that this was the case for 162 out of 380 housing associations, representing a nominal value of €17.9 billion (not including Vestia) at the end of 2011. Yet, the regulator also came to the conclusion that many housing associations did not have adequate knowledge to enter into many of the derivatives contracts on their books and that the derivatives portfolio of eight other associations is problematic (CFV, 2012). The case of Vestia was the tipping point for Dutch politicians and they initiated a Parliamentary Commission of Inquiry to study the social housing sector. This has resulted in a complete and, at the time of writing, ongoing reregulation of the housing associations, of which we will not discuss most details here.

Among other regulatory changes, the national government has restructured the supervision of the housing associations. The new regulator of the sector, the *Autoriteit Woningcorporaties*, has replaced the remediation support fund CFV, has acquired more power than the CFV, and is firmly embedded in the Ministry of Infrastructure and Environment. One of the regulator's most important actions to date is the "stress test" that was published in October 2016 (Autoriteit Woningcorporaties, 2016). The report shows that 115 out of now 350 housing associations have speculative derivatives and 167 have loans with "embedded derivatives", which are considered much less risky because they do not pose a liquidity risk.

[13] Both funds are co-financed by all housing associations. If at any time the annual rental income of all housing associations of €14 billion is not enough to provide the necessary equity for these funds, the municipalities and the national government, function as a backstop that will have to provide the necessary funding.

The authority is more concerned about the speculative derivatives that represented a nominal value of €13.7 billion in March 2016. Although this is €4.2 billion less than in 2011, the negative market value on these derivatives increased from €2.7 billion in 2011 to €6.1 billion in 2016 as a result of the further decrease in interest rates (Autoriteit Woningcorporaties, 2016). This also suggests that Vestia's derivative contracts would have caused even larger losses if they had not been terminated in 2012. Furthermore, half of the nominal value of these more risky contracts is in the hands of only seven housing associations, including Ymere which is currently the largest housing association, managing some 78,000 housing units in the greater Amsterdam metropolitan area.

However, the report also shows that risk awareness has improved: all 115 housing associations with risky derivatives are now aware of the risks, have created reserves—as required by new regulation—and have passed the stress test (Autoriteit Woningcorporaties, 2016). Notwithstanding the reduced risks, €6.1 billion is currently not available for constructing approximately 42,000 new social housing units (Hendriks, 2016) and will be forever lost unless interest rates will increase substantially very soon, since many of the derivative contracts include so-called "break clauses" that allow banks to monetize on the market values between 2016 and 2020.

If we want to understand the causal mechanisms that supported the derailment of Vestia, we need to comprehend the environment for Dutch housing associations that emerged from the 1990s onwards. The previous structure was uniform and operated under a variety of control mechanisms of the State Secretary of Housing. As the ties between housing associations and the state loosened, in a process of "regulated deregulation" (Aalbers, 2016b), the institutional structure allowed more room for agency and variegation. This nascent freedom needs to be located in the particular context of the most recent "manic phase" of capitalism (Kindleberger and Aliber [1978] 2005), before and after the bursting of the dot-com bubble. In this context, the age of financialization matured, accelerated and deepened.

The financialization of Vestia reveals how the agency of banks and housing associations transformed in the process, as they interacted and altered structural constraints in the messy progression of the regulated deregulation of the housing sector. As the clearly defined structure of housing provision gave way to an open-ended development that was governed by increasingly opaque rules and procedures, the scope for agency was amplified for both the banks and the housing associations. In this emerging institutional landscape banks, housing associations and state institutions established new market practices, rules and norms. Central to the agency of housing associations was their legacy from the days of the publicly organized welfare state. Unlike other former (semi-) public institutions, housing associations were asset-rich and therefore had a different relation to financiers. The new relation between banks and associations was highly asymmetric, with banks in the more powerful position, primarily through their superior access to information. However, the need to interact and to step into this realm of finance was not simply determined by structural imperatives but also by the newly acquired agency.

This explains why the new institutional context led to divergent strategies. While Vestia is an extreme case, a significant minority of housing associations became enmeshed with derivatives and accumulated losses. Almost half of the housing associations used derivatives and one-third still do. This leaves important questions related to the regulatory architecture of the last two decades unanswered. How could individual agents be allowed to become such key determinants in the transfer of capital from the social housing sector to private banks? Why were banks allowed to profit from this opaque market, at the expense of Dutch tenants? This structural flaw came at a high cost: the selling out of Dutch social housing to foreign investors on the one hand; and on the other, large accumulated losses that will translate into fewer investments in the production and renovation of social housing.

While state institutions guaranteed access to cheap credit, thereby providing an alternative to private financial intermediaries, housing associations "crossed to the other side" and became

engaged in business with investment banks. Unconventional financial instruments became increasingly tempting to housing associations as the age of financialization matured. Adding to the favourable conditions for financialization was the asset-rich nature of housing associations and the implicit state support in case of failure. Furthermore, we need to recognize that in this period other semi-public institutions, such as universities and hospitals, but also small- and medium-sized enterprises all became entangled in the web of debt and derivatives, not only in the Netherlands but also elsewhere.

The story of the financialization of Dutch housing associations, and of Vestia in particular, is a variation on other stories of financialization. Whereas other semi-public institutions moved into the world of finance due to financial constraints, housing associations moved in to capitalize on the possibilities offered by their asset-rich portfolios. From these related cases, we borrow the insight that the introduction of external financial templates and managerial practices into public institutions demands a transformation of the organization and a redesign of the institutional setting. Moreover: 'transactions must be treated as "governance-in-motion"—not as one-time transfers of public assets to private control, but as the complex process of constructing the powers and capacities necessary to produce value from urban infrastructure' (Ashton *et al.*, 2016: 1389). Financialization is a dynamic and interactive process whereby the market is continuously reshaped. This paper demonstrates that structural transformations towards financialization are not always shaped by financial agents, but also by agents that seek to test the waters and look for new frontiers in an emerging institutional landscape, such as Vestia and other housing associations.

From the accounts provided in this paper, on how Vestia accumulated a vast and unsustainable portfolio of derivatives, we can distil the process described above. Mergers and the willingness to outgrow competitors in combination with ever more complex mixed-use and commercial real estate projects went hand-in-hand with a growing receptiveness to non-conventional financial tools; first to cover risks and soon thereafter to act as business model, to generate an income based on speculation with derivatives. Financialization was a continuation of competition by different means. In order to win, to become the largest player and to monopolize particular markets, financial speculation moved from a means into an end. The financial rewards and the prestige allowed Vestia to outcompete other housing associations. The state actively promoted this competitive attitude and the associated movement away from the public sector and into financial markets (see also Aalbers, in press). The financialization of formerly (semi-) public organizations has not reduced the state's role but rather expanded it as a "risk absorber" … for the private market sector rather than for the citizenry' (Christopherson *et al.,* 2013: 352).

This opportunity-driven financialization, however, should not be interpreted as actors behaving rationally in a typical neoclassic marketplace. Together with the larger freedom to shape the business model came the dynamics of competition, blurring the focus and territoriality of housing associations. The wave of mergers in particular created organizations that operated on a larger scale and became more "professionalized", testing the limits of as well as giving shape to the new institutional framework. The use of derivatives started as a response to this new context but soon became part of a strategy based on speculation to outcompete other associations, as derivatives proved very profitable in the period before the crisis. In the case of Vestia, this large-scale speculative dynamic introduced structural information asymmetries between the banks and housing associations that only revealed their true nature once financial markets started to move in the opposite direction. Compared to a constraint-driven financialization process, the outstanding risks and potential losses were much larger in this opportunity-driven financialization process, due to the larger collateral that allowed for more leverage.

Although the case of Vestia has been investigated by a Parliamentary Commission, its regulators and several journalists, the precise role that foreign banks played in the derivate speculation of Vestia remains vague. Future research could focus on the precise role (foreign) banks have played in the miss-selling of derivatives to a semi-public organization,

thereby widening the understanding of interaction between sophisticated, global financial actors and local (semi-) public institutions who lack knowledge about complex financial products (Pani and Holman, 2013). An interesting starting point could be the current lawsuit against Staal in which domestic and foreign banks have to respond to queries and in which Vestia has to publish a lot of classified information. Another possible avenue for future research would be to investigate the use of derivatives by housing associations and other semi-public as well as public institutions after the bailout of Vestia, not only in the Netherlands, but also in England and Wales where at least 47 housing associations have entered into derivate contracts and its regulator warns of possible losses amounting to £2 billion (Allen, 2015). Even though the case of Vestia is unique, the financialization of housing and of the state—and their intersection at subsidized housing—is not limited to Vestia or the Netherlands.

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