The signature and the ratification of the nuclear Non-Proliferation Treaty (NPT) were some of the most difficult foreign policy decisions the Italian government had to face after the crucial choices of the early postwar years. This chapter is an attempt to provide a plausible explanation for the intensity of the debate that the Treaty stimulated, and more specifically for the actions that the Italian government took during the long delay between the Italian signing (1969) and the ratification (1975) of the Treaty. In order to do so, it briefly describes in an introductory paragraph the Italian approach to the growing importance of nuclear weapons in international relations since the mid-1950s, as well as the remarkably hostile reaction to the NPT. It then focuses on all the parallel efforts to bolster Italy’s status in such fields as uranium enrichment and nuclear naval propulsion. A final section looks at the diplomatic maneuvers and at the vitriolic dispute about ratification that took place in 1974-1975.

**General Survey**

From the mid-1950s the Atlantic Alliance's increasing reliance on nuclear weapons generated serious concern in the Italian government. Always very sensitive to their country’s ranking in the international system, Italian diplomats realized rather early on that the strategic choices of the Dwight D. Eisenhower administration threatened to reinforce the existing hierarchy among North Atlantic Treaty Organization (NATO) members. The countries which had some form of access to the new weapons would inevitably be placed in a position of higher responsibility inside the alliance, as they would be the ones who would make the crucial decisions about their use in case of war; while NATO non-nuclear members would be further sidelined. Such a challenge ran against one of the main goals of postwar Italian foreign policy, namely the restoration of a position of parity with the other European powers.
The solution that the Italian government developed to meet this new challenge was to resort to the same multilateral approach which had become one of the hallmarks of its foreign policy since the late 1940s. In order to achieve a nuclear status, Italy should rely on a strategy of cooperation, mainly with the United States but also, if and when possible, with other Western European countries. This policy was based on the assumption that the United States would eventually share its weaponry with its allies and that NATO would be the logical framework to establish some form of multilateral nuclear integration. Consequently, throughout the 1950s all the Italian governments repeatedly accepted the deployment of US atomic weapons on Italian territory. At the same time, the lingering doubt that the United States might not, after all, decide to fully share its nuclear technology made Italy pursue a parallel track. A possible European cooperation on the military applications of nuclear energy seemed a logical step, albeit not always an easy one, for a country which was deeply committed to the construction of Europe and which was already engaged in building a European Community for the civilian use of the atom. The idea of a European bomb, therefore, was constantly looming in the mental landscape of the Italian foreign policy-making elite: sometimes as an alternative to the Atlantic one, when the United States seemed to backtrack from a policy of nuclear sharing, sometimes as the necessary step to reinforce the European pillar of the Alliance. What was clear, in any case, was that a national choice seems to have been repeatedly excluded. The available documentation shows that whenever nuclear issues were discussed at the highest level by the Supreme Defense Council, the conclusion was always the same: no single NATO country in Europe could afford to deploy an effective atomic deterrent all by itself. Hence a collective effort was needed, with much support from the United States, which had to be convinced that an integrated Atlantic force was in everybody’s best interest.¹

This policy did not change even if by the early 1960s the John F. Kennedy administration took a much more hesitant approach to nuclear sharing. Perplexed as they were by a number of choices that the US government took, Italian diplomats saw no alternative to relying on its major ally for achieving a nuclear status. Uninspiring as it might have been, the Multilateral Force proposed by the Kennedy administration had to be accepted without too many illusions, wrote the Ambassador to the North Atlantic Council, Adolfo Alessandrini: it was “the only possible way we can insert ourselves, namely through the cooperation with the United States, in the world of nuclear strategy”.²

¹ Minutes of the Meeting of December 10, 1960, Archivio Storico Presidenza della Repubblica, Roma, Italia (hereafter ASPR), Verbali delle sedute del Consiglio Supremo di Difesa.
The same attitude shaped the Italian response to the proposal of US Secretary of Defense Robert McNamara to strengthen the Alliance’s nuclear planning process. Until the very end of 1966, therefore, Italian nuclear aspirations were centered around the principle of achieving some sort of parity with the other major European countries inside NATO. What is more important, arms control and disarmament policies were supported but with the clear understanding that they should not jeopardize the country’s aspirations. “Our goal is disarmament”, said Italian President Giovanni Gronchi to the Supreme Defense Council in December 1957, “but as long as we do not get there, we have the duty to adequately defend ourselves”. And as late as June 1966, the point was firmly repeated by Prime Minister Aldo Moro in his instructions to the Foreign Minister, Amintore Fanfani: none of the disarmament proposals discussed at the 18 Nations Disarmament conference in Geneva should affect the “collective nuclear projects” that Italy supported.3

This world view, and the assumptions on which it was based, came under severe strain by late 1966, when the United States circulated a new draft for a non-proliferation treaty at the Geneva conference. The document basically cut the Gordian knot between nuclear sharing and non-proliferation by making clear that the United States preferred the latter to the former, much to the chagrin of its non-nuclear allies. Finally accepting the Soviet point of view that the dissemination of nuclear weapons inside NATO was indeed a case of proliferation, the new draft clearly stated in article 1 that nuclear states should not transfer nuclear weapons “to any recipient whatsoever” – a comprehensive formulation which clearly included the Atlantic Alliance. As more contents of the new draft became known, the Italian government was horrified to discover that many of the premises on which its nuclear aspirations had been conceived were being wiped out by none other than its foremost ally. The indignant reactions by most politicians and diplomats show how widespread this feeling of betrayal was, from the President of the Republic to most of the diplomatic corps. At the same time, while there were some grumblings about a national option or a possible rejection of the treaty, the official position of the government was to change as much of the new US draft as possible but without opting for any radical alternative. For the next two years, until it signed the NPT in January 1969, the Italian government saturated the Lyndon B. Johnson administration with a plethora of requests for modifying the treaty, perhaps secretly hoping that its demands would help make sure that it never saw the light.

AN EXPANDING ARRAY OF NUCLEAR ACTIVITIES

At the same time, the government and the Comitato Nazionale per l’Energia Nucleare (CNEN) stepped up the tempo of Italian activities in the civilian nuclear sector. This can be explained by a number of reasons which apparently have little to do with the NPT: some of these initiatives, as a matter of fact, might have taken place even if there had been no treaty at all, and they may be interpreted as the results of independent historical and technological processes. The coincidence, however, is truly remarkable, and what limited documentary evidence is available makes one wonder if the government authorized the CNEN to probe the limits of the nuclear order which was being created under the NPT. In an aide-memoire which was handed over to the Director of the US Arms Control and Disarmament Agency (ACDA) William Foster in March 1967, for instance, the Italian government raised several questions about what specific technological developments the NPT could or could not banish. Two of these points, in particular, are worth exploring more in depth, as they clearly reflect the Italian aspirations to play a larger role in nuclear matters – namely joint enrichment projects and naval propulsion.

At the crucial time when the negotiations for the NPT were coming to a head, there was a strong resurgence of interest in uranium enrichment across Western Europe. From a technical and economical point of view, there was a concrete fear of a bottleneck in the fuel supply for what seemed at the time the growing demand of the European nuclear sector. By the mid-1960s, almost all the nuclear fuel for European reactors was safeguarded natural uranium coming from the United States through a US-Euratom agreement. The United States, however, was planning to switch from natural uranium reactors to light water ones which would require enriched, rather than natural, uranium as its fuel. The Europeans, who planned a similar switch, worried lest in the future the United States might not be able to produce the increased amount of low enriched uranium (LEU) necessary to support their own expanding nuclear sector. On top of all this, the impact of the June 1967 Six-Day War and the consequent threat of a critical shortage of Middle Eastern oil supplies hastened the European interest in a possible independent source of nuclear fuel.

Almost simultaneously, one of the major obstacles to the construction of a European separation plant was about to be removed by a remarkable technological shift. Until then, the sheer cost of building a gaseous diffusion plant had been one of the reasons

which had tempered the European interest in having an independent source of enriched uranium. By the mid-1960s, however, a number of European governments had made significant inroads into the new technique of centrifugal separation, which promised to be remarkably cheaper than its previous alternative. By early 1967 the British, the Dutch and the German governments had all reached this conclusion and the last two had actually said so in public in a meeting of the European Atomic Forum (FORATOM), the association of European nuclear industries.\footnote{John Krige, “The Proliferation Risks of Gas Centrifuge Enrichment at the Dawn of the NPT”, \textit{The Nonproliferation Review} 19, no. 2 (2012): 219-27, see 223. For more background, see R. Scott Kemp, “The End of Manhattan: How the Gas Centrifuge Changed the Quest for Nuclear Weapons”, \textit{Technology and Culture} 53, no. 2 (2012): 272-305.} The three governments would soon start a negotiation to set up a joint consortium that eventually led to the treaty of Almelo in 1970 and the establishment of Uranium Enrichment Consortium (URENCO).\footnote{R. B. Kehoe, \textit{The Enriching Troika: A History of Urenco to the Year 2000} (Marlow: URENCO, 2002).}

A whole web of parallel and multilateral negotiations accompanied these developments. At the end of 1965, the British suggested reactivating and expanding their gaseous diffusion plant at Capenhurst and asked the West German government whether it might be interested in participating in the project.\footnote{Susanna Schrafstetter and Stephen Twigge, “Spinning into Europe: Britain, West Germany and the Netherlands: Uranium Enrichment and the Development of the Gas Centrifuge 1964-1970”, \textit{Contemporary European History} 11, no. 2 (2002): 253-72, see 256.} In May 1967 the Germans enquired whether the French might be interested in expanding their own military enrichment plant at Pierrelatte into a civilian facility with German support,\footnote{Tel. 6869 from AmEmbassy Brussels to the State Dept., June 21, 1967, National Archives and Records Administration, Washington, DC (hereafter NARA), RG 59, CFPF 1967-1969, b. 2897, f. AE 11-2 Euratom. For an analysis of the Commission’s role, see Mauro Elli, “Between Industrial and Energy Policy: The Issue of the European Capacity in Uranium Enrichment, 1969-1974”, in \textit{The Road Europe Travelled Along: The Evolution of the EEC/EU Institutions and Policies}, ed. Daniela Preda and Daniele Pasquinucci (Bruxelles: Peter Lang, 2010), 383-94.} and at the end of the same month the Euratom Commission approved a memorandum which officially recommended the creation of a European enrichment plant. The rise in the number of light water-enriched uranium reactors, the memo argued, would put a strain on the capacity of the US fuel supply to Europe, and neither the expansion of Capenhurst nor that of Pierrelatte, if done at a national level, would be able to meet the resulting gap.\footnote{Silvio Labbate, \textit{Il governo dell’energia. L’Italia dal petrolio al nucleare (1945-1975)} (Firenze: Le Monnier, 2010), 108-09.}

As these projects unfolded, in June 1967 the CNEN approved a document which made clear its interest in the long-term procurement of uranium supplies, including the participation in international initiatives.\footnote{Daviet, \textit{Eurodif}, 319.} Simultaneously, the CNEN’s director for
external relations, Achille Albonetti, outspokenly advocated the creation of a European separation plant. It was a necessary step, he wrote in a number of editorials, to give Europe the necessary independence in such an advanced technological field and to bridge the growing gap between Europe and the United States.\textsuperscript{12} He even hinted that such a nuclear Europe could develop its own weapons and use them as leverage to obtain the disarmament of the other nuclear powers. Even if this ambitious military goal could not be accomplished, Europe still needed a joint enrichment plant, and any opportunity had to be exploited. In one of his articles, for instance, he encouraged the United Kingdom to share its nuclear know-how and its nuclear hardware with its European allies.\textsuperscript{13}

The other key figure to fully endorse a European plant was the Minister of Industry and President of the CNEN, the influential Christian Democrat (DC) politician Giulio Andreotti. At the December 1967 Euratom Council meeting, he strongly declared his approval of such an initiative, and he seems to have been the main supporter of the Council's decision to set up a study group to assess Europe's supply situation as well as to make some recommendations on the matter.\textsuperscript{14} Simultaneously, at the national level he urged the CNEN “to take action as soon as as possible” in the field of securing uranium supplies, because “there was a remarkable flourishing of initiatives worldwide” and “by waiting any longer, there was a risk of finding all possible channels closed”.\textsuperscript{15} By the end of 1967, there was enough interest in uranium enrichment for the CNEN to decide to create an inter-governmental agency, the Gruppo Italiano Arricchimento Uranio (GIAU), with the task of coordinating the research and the initiatives of all the private and public companies working in this field.\textsuperscript{16} On August 2, 1968, the Government's Comitato Interministeriale per la Programmazione Economica (CIPE) officially decided that Italy should participate in the construction of a European enrichment plant, stating that such an opportunity could not be missed.\textsuperscript{17} Not long afterwards, the CNEN also started exploring the opportunity to cooperate with the United Kingdom in the field of centrifugal separation. By the end of 1968, the British hinted to the Italians

\begin{thebibliography}{9}
\bibitem{12} Achille Albonetti, “Produrre uranio”, \textit{L’Europa} 1, no. 5 (October 13-20, 1967).
\bibitem{16} The chairmanship of the new Committee was given to Piero Caldirola, one of Italy's foremost physicists. Caldirola was a leading figure at the University of Milan and, since 1961, the Scientific Director of the Research Reactor of the CAMEN, the military center for nuclear research (see below, notes 34 and 35).
\bibitem{17} Appunto del Ministero degli Esteri: Arricchimento Uranio, August 3, 1973, AM, ACS, b. 162, f. vertice europeo di Copenhagen.
\end{thebibliography}
that they were willing to discuss the possible participation of any fourth country to the tripartite arrangement they had been negotiating with the Germans and the Dutch. The Italians were pleased and took the offer very seriously, declaring that they wished to be considered as “full partners from the start”.

Both these initiatives failed. The Euratom idea never really took off, repeating the fiasco of the first attempt which had taken place during the treaty negotiations in the mid-1950s. As for joining URENCO, the British seemed interested in opening up the partnership to the Italians but met with a certain resistance from the other two members of the consortium, who were not ready to grant Italy a full affiliation. Italy (and Belgium) were invited to “associate” themselves with the other three countries “through a 10 per cent in the Enrichment Organization and 5 per cent in the Prime Contractor”, but were excluded by the policy-making Joint Committee. The risk of joining as an unequal partner, coupled with some perplexities about the ultimate success of a new technology, toned down the Italian interest in the project. Some lengthy negotiations eventually succeeded in defining the draft of a possible intergovernmental agreement between the URENCO group and Italy, and by late 1973 Albonetti wrote to Andreotti that he saw some indication that the three partners might eventually change their attitude vis-à-vis a full Italian membership. For the time being, however, Albonetti recommended that it would not be wise to rely entirely on such a flimsy perspective, particularly because there was another opportunity to enter the field of uranium enrichment as a full partner of another consortium.

In June 1971, as a matter of fact, the Italian government had approved the development of a parallel negotiation to associate Italy with another project in the field of uranium enrichment, and entered a negotiation with the French Commissariat à l’Energie atomique (CEA) to define the possible participation in the French project for the expansion of Pierrelatte, what would later be called EURODIF. In December 1971, the Italian Parliament approved a law which restructured the CNEN and allowed it to participate in international consortia working on the industrial development of peaceful uses

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18 “Italy and the Centrifuge Organization”, note by G. P. C. Macartney, August 30, 1972, UK National Archives (hereafter UKNA), FCO 55-933 Participation of Italy in tripartite centrifuge arrangement.


of nuclear energy. In January 1972, the CNEN and the CEA signed a memorandum of understanding which granted Italy a participation in 22.5 per cent of EURODIF’s activities, a quota that would be later extended to 25 per cent when Sweden opted out of the consortium. By the end of the following year, the Italian government was called to make the final decision about financing its share of the project, and Albonetti wrote to Andreotti to recommend reaching a positive conclusion as quickly as possible.24 After a somewhat difficult debate, the CIPE approved the memorandum on Christmas Eve, 1973. Albonetti actually believed that the Italian decision rescued the entire project, as the French initiative seemed to be faltering if no other major European partner decided to support it.25

Clearly, Italy tried hard to join both projects, and above all it considered it of paramount importance to avoid any fracture between them. According to a 1973 Foreign Ministry memo, the Italian goal was actually to eventually merge the two projects into a common European agreement.26 This broad approach was confirmed by the fact that Italy also joined the Association for Centrifuge Enrichment, an international study group on various aspects of centrifuge plant usage (including technology, construction, and finance) that was set up at Eton on June 1, 1973 partly to reply to an initiative from the European Community (EC) Commission that was trying to reconcile all the different projects.27

What needs to be highlighted in the context of this chapter is the coincidence of the upsurge of a strong interest in the field of enrichment with the progress of the negotiations of the NPT. This acceleration was certainly influenced by all the economic and technological factors discussed at the beginning of this paragraph, but the impact of the concerns engendered by the NPT should not be underestimated. In April 1967, for instance, an internal Foreign Ministry memo stressed that the NPT draft would impose a number of severe controls on any Italian initiative in the field of uranium enrichment or of plutonium reprocessing.28 And in 1973 the Foreign Ministry highlighted the need for Europe to have an autonomous enrichment capacity which would make it fully

independent from any existing oligopolies – a belief which, as we have seen, was firmly shared by Albonetti as well.29

A similar determination can also be seen at the research and development level. Throughout these years, Italy developed an intense enrichment research program, with the CNEN studying and producing a number of components for a gaseous diffusion plant (in particular, compressors and barrier supports, but also less technologically advanced equipment), while also continuing to carry out its own research on centrifuges. As long as there was no certainty that EURODIF would actually see the light, the CNEN worked on centrifuges with some alacrity, in order “to demonstrate the feasibility of machines which, despite their low unit capacity”, might allow the production of enriched uranium at relatively accessible market prices. According to a 1977 report, the objective was reached “in part with the tests on separation in UF/6 of machines with small-size steel rotors, thus making it possible, also, to test theoretical forecasts and acquire an understanding of the process as a whole”. After EURODIF was created, however, research on centrifuges continued at a slower pace, and was gradually placed on the back-burner but not totally abandoned. Some interesting work was also done on the design of a pilot burner plant for a few hundred machines.30

Italy had also been active in the field of fuel reprocessing for quite a while. Italian technicians had worked from the very beginning in the Organisation for European Economic Co-operation’s Eurochemic plant,31 and in 1970 the CNEN had inaugurated its first pilot national reprocessing plant, EUREX I, at Saluggia. The plant had been designed specifically to reprocess the highly enriched uranium fuels used in research reactors, and according to one estimate its plutonium extraction capacity varied from 8 to 200 kg of plutonium a year.32 A second pilot plant was built at the CNEN Trisaia center to study “fuel reprocessing and refabrication techniques related to the thorium-uranium cycle, as an alternative to the U-Pu cycle”, but after a troubled start it was decommissioned shortly after its completion. By 1974, however, both EUREX and the former Trisaia center (now renamed Impianto Trattamento Elementi Combustibili, ITREC) were “commissioned to start a wide range of experimental activities in the field, of the


power reactors oxide fuel reprocessing and, respectively, fast reactor fuel reprocessing. To support these pilot plant activities an adequate research and development work at laboratory scale was also implemented.\textsuperscript{33} According to a 1977 study, the goal of the new range of activities was to develop "the necessary experience and knowledge which would allow [the Italian] domestic industry to design, build and operate a commercial size reprocessing plant when, by the late 1980s, this plant will be justified by the extent of the Italian nuclear program". A much larger reprocessing plant, EUREX II, had in fact been planned to be operational by around 1985.\textsuperscript{34}

Finally, it should be pointed out that in 1955 the Ministry of Defense had created a Centro per le Applicazioni Militari dell’Energia Nucleare (CAMEN), in Pisa, which was operated jointly by the Naval Academy and by the University of Pisa. After a somewhat uncertain start, in 1957 the Center’s activities took off and shortly afterwards it was supplied with a swimming pool research reactor by the US firm Babcock & Wilcox.\textsuperscript{35} The reactor went critical on April 4, 1963 and reached its maximum power of 5MW in 1967. The Center, on which there is a very limited literature, seems to have focused most of its research around the reactor itself, the study of naval propulsion, and the diffusion of radioactivity.\textsuperscript{36}

**Naval Propulsion**

In his October 1967 article, Albonetti wrote that the other matter which deserved the attention of the Italian government was naval propulsion, and in the late 1960s there was indeed a remarkable intensification of Italian activities in this field as well. In December 1962 Italy had formally requested US assistance to build a nuclear submarine, but the negotiations never went anywhere, and the project was finally abandoned. In December 1966, however, the Italian ministers of Defence (Roberto Tremelloni) and of Trade and Industry (Andreotti) signed an agreement for a joint Navy-CNEN project to

\begin{itemize}
\item \textsuperscript{34} Baker, “Politics and Technology”, 191.
\item \textsuperscript{35} The story of how a military center could be supplied by the United States with a research reactor without violating the regulations on nuclear exports is fairly complicated. See Memorandum by Algje A. Wells, AEC Division for International Affairs, to Philip Farley, Dept. of State, January 30, 1963, in NARA, RG 59, lot file General Records relating to Atomic Energy Matters 1944-1962, b. 503, f. 21.51 Country file Italy, h. Reactor 1957 & 1962.
\end{itemize}
develop a nuclear propelled surface ship. The US State Department informed the Italians that the mixed civilian and military nature of the vessel was likely to raise a strong Congressional opposition, and suggested leaving the Navy out of it.\textsuperscript{37} The CNEN replied with a detailed memo which explained the nature of the initiative, specifying that the future reactor would be a pressurized light water one, requiring low enriched uranium at 4.7 per cent. The ship would be a “logistical supply ship”, any information provided by the United States should not be classified, and if necessary Euratom safeguards could be applied to any nuclear fuel the United States could provide. The only concession that Italy could not afford to make, the memo continued, was about the participation of the Italian Navy, which was necessary because only the Defense Ministry could supply the required funding for the project.\textsuperscript{38} In April 1967, Albonetti and Rear Admiral Luigi Tomasuolo went to Washington to continue the negotiations, but they met with a stiff resistance.\textsuperscript{39} Faced with such a negative outcome, Andreotti expressed the intention to launch a broader effort to find the required LEU for both the critical test and the regular future supply of the reactor.\textsuperscript{40} Albonetti then approached the Director of the UK Atomic Energy Authority Overseas Relations Office, J. L. Croome, to enquire about the possible price of the materials necessary for “the performance of a critical experiment, the irradiation tests of fuel elements, the fabrication of the first reactor core”.\textsuperscript{41} Similar requests were also sent to the US Atomic Energy Commission (USAEC) and the CEA.

The British government took a long time to reply. As one Foreign Office (FO) official aptly noted, the United Kingdom found itself “caught in the cross fire of [its] European Common Market and Anglo-American interests”.\textsuperscript{42} All the participants in the debate inside the British government stressed the obvious linkage among the possible nuclear fuel supply to Italy and the parallel negotiations about the NPT and the joint enrichment plants. “Our hope of associating European countries in the development of Capenhurst as a European source of enriched uranium will be damaged if we refuse to assist the Italians in this case”, noted a memo by one of the supporters of the Italian request. “If we

\begin{footnotesize}
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\item Tel. 135835 from the State Dept. to the Embassy in Rome, February 13, 1967, NARA, RG 59, CFPF 1967-68, b. 1560, f. DEF 12 IT.
\item Airgram A-932 from the Embassy in Rome to the Dept. of State, “Italian request for nuclear fuel”, April 14, 1967, NARA, RG 59, CFPF 1967-68, b. 1560, f. DEF 12 IT.
\item Silvestri, \textit{Il costo}, 385-86. See also The Department of State During the Administration of President Lyndon B. Johnson, vol. I, Administrative History, ch. 3, Part D, Bilateral Relations with Western Europe – Italy, in DDRS, 1985/2834.
\item Appunto per l’ambasciatore Ortona, 5 giugno 1967, ASPR, Ufficio Consigliere Diplomatico, b. 153.
\item Letter from Albonetti to J. L. Croome, July 31, 1967, UKNA, EG 8, f. 43 “Export of enriched uranium for Italian nuclear ship”.\textsuperscript{38}
\item Letter from Robert Press (Cabinet Office) to J. L. Croome, UKAEA, August 23, 1967, UKNA, EG 8, f. 43 “Export of enriched uranium for Italian nuclear ship”.\textsuperscript{40}
\end{enumerate}
\end{footnotesize}
do not supply, … France as a good European might make material available if only to show the UK as a bad European”. A denial, the memo concluded, “would be interpreted by the Italians as discriminatory and against their interests. Their willingness to sign a Non-Proliferation Treaty would hardly be enhanced”. 43

The British and American vacillations greatly annoyed Albonetti. When he visited London in October 1967, he accepted Croome’s official explanation for the delay, but also restated his firm intention to go ahead in one direction or the other, adding that he:

felt that they could not be entirely dependent on others for supplies of enriched materials for nuclear ships, whether for marine or naval purposes. Privately off the record, he added some fairly intemperate remarks about the attitude of the Americans. … he had also made enquiries in France and he thought that the French would be prepared to supply their requirements in exchange for plutonium derived from Latina.44

Such an irritation was apparently quite widespread among the diplomatic corps. The Director of Euratom and Atomic Energy Affairs at the Foreign Ministry, Counselor Stefano D’Andrea, warned a US diplomat that the fact that the United States was refusing “even” the supply for the nuclear ship would have some far reaching consequences:

It could force both industry and the government to come to the proper conclusion that Italy must look to itself in this regard and not be in a position to be dependent on others …. The obvious step [would be] to devote enough of its own resources to produce its own enriched fuel regardless of the policies of others. … Italy might at first try to interest some of the other European countries in a joint venture but if this failed, it should be prepared to pay the cost of doing it alone. … He also mused that perhaps France was right and Italy wrong when it came to making the decision whether to be independent or dependent on others as regards supply of this material. To sum up, the US obduracy might in the end force Italy to do what it probably should have done long ago: ensure its access to enriched uranium alone or with a minimum of other co-producers.45

Eventually the Foreign Office agreed to offer the CNEN the LEU for the land-based critical experiment of the reactor. The Italian agency, however, replied that it was interested in the offer only if the British could also ensure the fuel for the reactor of the ship,

43 Memo attached to a letter from J. McAdam Clark to G. E. Hall, October 17, 1967, UKNA, EG 8. F. 43.
44 Letter from Croome to Hall, October 31, 1967, UKNA, EG 8. F. 43.
45 Airgram A-672 from AmEmbassy Rome to State Dept., December 22, 1962, NARA, RG 59, CFPF 1967-69, b. 1560, f. DEF 12 IT.
opening up yet another, more complicated round of negotiations. By the end of 1968, the talks became strictly interwoven with the parallel ones on centrifugal enrichment once again, and many in the FO thought it necessary to compensate the likely Italian exclusion from the trilateral consortium by meeting their demands for the ship’s fuel.\footnote{Letter from Fred Mulley to the Secretary of State for Defense, November 8, 1968, UKNA, EG 8, f. 44.}

When the British government finally made up its mind and replied to the Italian request, it was November 1968. The CNEN, however, kept silent until August 1969, when Albonetti told the British that the CNEN and the Navy were no longer interested in their offer. The Italian authorities, he wrote, had decided to accept another offer, “considered more convenient” – which was clearly the French one, even if Albonetti did not say so explicitly.\footnote{Letter from Albonetti to Coningsby Allday, August 5, 1969, UKNA, EG 8, f. 44; see also Letter to Chairman Holifield, JCAE, September 15, 1969, NARA, RG 59, CPFP 1967-69, b. 1560, f. DEF 12 IT.}

It is highly plausible that the choice was influenced not only by the economic conditions which the CEA offered, but also by the fact that France was going to accept Italy as a full partner inside EURODIF, while the British could not do the same about URENCO. Eventually, the CEA agreed to supply 2,000 kilos “of 4.7 per cent enriched uranium for the research reactor and 5,000 kilos for the ship’s first fuel load”.\footnote{Baker, “Technology and Politics”, 128.}

Finally, it should be remembered that at about this time Italy was also involved in a specific project for the development of a national ballistic missile. Although not strictly related to the development of civilian nuclear capacities, this project is quite interesting to place all these activities in a more complex perspective. Both the Italian Navy and Air Force had shown a keen interest in rocketry from the mid-1950s, and they experimented with a variety of weapons, both national and international.\footnote{Giovanni Caprara, L’Italia nello spazio. Storia, realizzazioni e programmi della ricerca spaziale italiana (Roma: Valerio Levi, 1992); Alberto Traballesi, “The Italian Air Force and the Development of Space Activities”, in Italy in Space: In Search of a Strategy, 1957-1975, ed. Michelangelo De Maria and Lucia Orlando (Paris: Beauchesne, 2008), 233-59.}

From the 1960s, moreover, Italy had developed a bilateral space research project with the United States, the San Marco, to build a seaborne launching facility near the Equator and to launch an Italian satellite carried by a US Scout launcher. At the same time, Italy also joined other European countries in the development of the European space organizations – European Space Research Organisation (ESRO) and European Launcher Development Organisation (ELDO).\footnote{Michelangelo De Maria and Lucia Orlando, “Preface”, in De Maria and Orlando, Italy in Space, 7-10, see 8.} By the end of the 1960s, however, the Italian Navy began to develop a special national project for the creation of a solid-propelled, two stage rocket, and in 1971 a Special Interforce Group was created to design such a rocket, construct
its first stage engine and test it in flight. A large number of specialized Italian defense and electronic companies were involved in the project, and by the mid-1970s the Alfa missile was completed – an 8-meter long rocket with a circumference of 1.4 meters which reportedly could deliver a one-ton warhead at a distance of 1,600 km. The missile tests all took place (successfully) in the second half of 1975 and continued until April 1976, when the program seems to have been discontinued.51 The very limited historical literature on this topic provides no explanation for the rather abrupt termination of the project.

THE RATIFICATION DEBATE

By the early 1970s, Italy had signed the NPT but at the same time it had also strengthened its nuclear status across the board. More significantly, after the signature no immediate steps were taken for the ratification of the treaty. Apparently the inactivity was based on an unassailable formal justification: together with West Germany and the Benelux countries, the Italian government was committed not to ratify the NPT until Euratom had concluded an agreement with the International Atomic Energy Agency (IAEA) about inspecting all nuclear facilities in the territory of the Euratom member countries. The negotiation, however, dragged on for almost three years. An agreement was finally signed on April 5, 1973. It was a substantial diplomatic victory for the European countries, as it granted Euratom what many critics saw as basically a right to self-inspection: Euratom was recognized “as a party to the application of Article 3 of the NPT”, while the IAEA was granted “a right (but not an obligation) to visit some facilities in Euratom territory, when invited to do so by the Europeans”.52 In the following months the Benelux countries ratified both the safeguards agreement and the NPT. West Germany and Italy, however, seemed to be taking a more cautious approach.

In February 1974, in particular, an inter-ministerial meeting in Rome decided to keep parliamentary actions on the safeguards agreement separated from the ratification of the NPT. The Italian Ambassador in Washington, Egidio Ortona, explained to ACDA Director Fred Iklé that the decision was taken because the government felt that the NPT ratification was a “highly-charged political question”, while the safeguards

51 All the information about the Alfa missile comes from Traballesi, “The Italian Air Force”, particularly 252-56.

agreement was a relatively easy, technical issue. It was also, Ortona added, a more urgent one as it affected the supply of nuclear materials and it was of great interest for the other Euratom countries.53

The Italian decision to split the parliamentary debates about the two issues concealed an implicit gambit, which was made clear a few weeks later by the Foreign Ministry’s Director General for Political Affairs, Roberto Ducci, in a conversation with the American Deputy Chief of Mission in Rome. By ratifying the IAEA-Euratom safeguards agreement, Ducci argued, Italy could be guaranteed all the necessary fuel deliveries and technical assistance for its civilian nuclear program, as such deliveries were covered by the US-Euratom agreement. Ratification of the NPT, on the other hand, was of no immediate urgency and Italy intended to take its time, particularly as far as the 1975 Review conference was concerned. Ducci openly admitted that he preferred to see what results the conference would produce before Italy joined the non-proliferation regime.54 These statements raised only a limited alarm in the US Embassy in Rome, which interpreted Ducci’s remarks as yet another case of Italian discomfort at being classed with the have-nots. The US Ambassador, therefore, urged nothing more than a frank clarification about the difficulties that the Italian decision might create.

The Italian opponents of the NPT, however, were clearly looking for a way to avoid an immediate ratification, and their perplexities were reinforced by the Indian Peaceful Nuclear Explosion (PNE) of May 18, 1974. The test sparked yet another round of vehement discussions, as it seemed in their eyes to confirm the substantial failure of the treaty and of the whole non-proliferation regime. A first sample of what was to come was offered once again by Ducci in a conversation with his German counterpart, Ministerialdirektor Günther van Well: Ducci argued forcefully that there was no formal link between the ratification of the safeguards agreement and of the NPT, nor was there any indication that future US deliveries of fissionable materials would be affected by a delay in the ratification of the latter. As to the risk of missing the opportunity of participating in the first NPT review conference in 1975, Ducci reacted with “scorn”, countering that the conference “would not amount to anything, anyway”. Upon being informed by a disconcerted van Well, this time the US Ambassador cabled the State Department recommending that the United States “now bring to bear all reasonable pressure on the Italians to submit the treaty as soon as possible”.55

Shortly afterwards, the first public shot against the NPT was fired by no less than the Secretary General of the Foreign Ministry, Roberto Gaja, who in June 1974 published

53 Tel. 087602 from the State Dept. to AmEmbassy Rome, 29 April 1974, NARA, Central Foreign Policy Files, 7/1/1973-12/31/1979, Record Group 59 (hereafter CFPF).
54 Tel. 6225 from AmEmbassy Rome to State Dept., May 6, 1974, NARA, CFPF.
55 Tel. 08718 from AmEmbassy Bonn to State Dept., May 31, 1974, NARA, CFPF.
a couple of editorials under his customary pen name of Roberto Guidi, calling for Italy to reconsider its support for the NPT. Gaja argued that the Indian test showed that the treaty had failed in stopping proliferation and in providing adequate guarantees to the non-nuclear states. The logical conclusion that the government should draw, therefore, was that it should try to promote a substantial modification of the treaty. Italy should call for the creation of a third category of states, which he called “non-military nuclear states”, namely those countries that had the technological know-how and the industrial infrastructure to quickly weaponize, but that refused to do so – a proposal which casts an interesting light on all the Italian activities described in the previous paragraph. The EC, Gaja argued, had the full right to see this status formally recognized, and Italy should work to make it happen. Something, incidentally, which he believed would also have the additional benefit of opening the door to a possible revision of the structure of the UN Security Council.56

Gaja’s thesis was reinforced by the publication of another article by Albonetti, who pointed out that in the Mediterranean a large number of countries had neither signed nor ratified the treaty (at the time, the list included Albania, Algeria, France, Israel, Libya, Spain, Portugal and Turkey), an ominous development which he claimed posed an implicit danger for Italy.57 Other critics joined the fray: historian Rodolfo Mosca, for instance, argued that by refusing to ratify, Italy would contribute to creating an international system which would finally overcome the rigid order created at the end of World War II, as well as strengthening European integration by re-establishing a balance between Italy and the two European nuclear powers, France and Britain.58

These rather nuanced argumentations were supplemented by a far more provocative publication in Politica e strategia – a magazine which had some dubious connections with extreme right-wing groups. In its September 1974 issue, the magazine published a special section featuring a number of essays which openly discussed the costs of national nuclear options.59 The two most striking contributions were yet another article by Albonetti, “Difesa nazionale e autonomia nucleare” (National defense and nuclear autonomy), and an editorial by the magazine director, Filippo De Jorio, who unmistak-
ably advocated for Italy the development of its own tactical nuclear weapons. In his own article, however, Albonetti simply listed the steps through which Italy could, if she wanted to, develop her own bomb, but did not support this choice and actually advocated once again the creation of a European nuclear force.\textsuperscript{60}

The publication unleashed a veritable storm in the Italian media which lasted for several weeks, and in the heat of the debate all the opponents of the ratification were lumped together in an undistinguished group. Both Gaja’s and Albonetti’s subtleties were totally ignored and they were simply accused of supporting an Italian way to the bomb together with all sorts of right-wing conspirators and terrorists.\textsuperscript{61} Special attention was also dedicated to the CAMEN by a bizarre left-wing magazine, \textit{Maquis}: in a special inquiry aptly titled “Come l’Italia prepara l’atomica” (How Italy is preparing the atomic bomb), it clearly argued that the “mysterious” organization was feverishly working on an Italian device. The Director of the Centre, Rear Admiral Avogadro di Valdengo, published an interview in which he denied all the accusations, but his subsequent resignation was regarded as an indication that something wrong was afoot.\textsuperscript{62}

The virulent debate continued throughout the Fall of 1974, in spite of a number of strong denials repeatedly issued by Andreotti, back in his previous seat of Minister of Defense. Both the United States and Italy’s European allies, in the meantime, had begun to seriously worry about the possible repercussions of the Italian vacillations. The Indian test had reinforced the overall perception of the fragility of the NPT regime, and an Italian delay to ratify, not to mention an outright refusal, was seen as a potential crucial blow to its shaky foundations. In West Germany and in Japan, in particular, the NPT had been a very controversial issue, and both governments feared that an Italian refusal to join the non-proliferation regime could reopen a veritable can of worms.\textsuperscript{63} In short, in the second half of 1974 the Italian vacillations were assuming an importance far broader than the Italian case per se, and they “could cause a very serious problem”, as German Deputy Assistant Secretary of State Roth told US Counsellor Helmut Sonnenfeldt in October 1974. Both the State Department and the West German Foreign Ministry, therefore, repeatedly discussed how to coordinate their approaches to put pressure on the Italian government.\textsuperscript{64} US diplomats tried to disabuse the Italians of any illusions.

\textsuperscript{62} \textit{Maquis} 2 (September 1974).
\textsuperscript{63} Tel. 55415 from State Dept. to AmEmbassy Rome, March 20, 1974, NARA, CFPF.
\textsuperscript{64} See for instance Memorandum of Conversation, October 28, 1974, NARA, RG 59, Sonnenfeldt papers (lot file 5339), Country and subject Files 1973-1976, box 3, f. Germany 1974 (1 of 2).
that the United States would automatically continue its supplies of nuclear materials to Italy even without a full ratification of the NPT.\textsuperscript{65} As for the West Germans, they first thought about a joint \textit{démarche} of all EC members, but then acted either alone or in coordination with the United States and the United Kingdom, pointing out to the Italian government the damage that any further delay would inflict on the Community as well as on West Germany itself.\textsuperscript{66} Both Washington and Bonn, however, seemed to have felt somewhat uncomfortable in putting pressure on Italy, and often asked each other to take the lead.

Tension in Italy continued to mount. By the late Fall a number of parliamentarians called for an official inquiry on Albonetti, and eventually 142 of the country’s leading physicists, led by such prominent figures as Guido Calogero, Edoardo Amaldi and Carlo Schaerf, addressed a letter to the Ministry of Foreign Affairs criticizing the vacillations of the Foreign Ministry and asking for the immediate ratification of the treaty.\textsuperscript{67} Apparently, the combination of both internal and external pressures pushed the opponents of the treaty into a corner: when a new government was formed under the leadership of Aldo Moro, at the end of November 1974, its members seemed to have been “sensitized … to some of the unpleasant domestic and international ramifications of further foot dragging on NPT”, as the US Ambassador John Volpe cabled to Washington. Nevertheless, in the same telegram Volpe added that there were some doubts as to where Moro himself stood on this issue, and concluded that the United States should present its view “with firmness and clarity at the political level”, outflanking the main centers of resistance in the Foreign Ministry.\textsuperscript{68} As an additional instrument “to hold the Italian government’s feet to the fire”, the US Embassy also recommended hinting at the fact that without a full ratification of the treaty Italy might not be admitted to the impending First Review Conference of the NPT, not even as an observer.\textsuperscript{69}

In the early months of 1975, the new Moro government was submitted to a steady barrage of diplomatic \textit{démarches}. The State Department reached the conclusion that “the Italian question” seemed to be arriving at its critical phase, and that its outcome might have an “overriding impact on the attitude of other states on NPT ratification – above all, Japan”.\textsuperscript{70} US Ambassador Volpe drove home the US interest for an Italian ratification of both the safeguards agreement and the NPT, first to Gaja in late January and then

\textsuperscript{65} Tel. 198749 from State Dept. to AmEmbassy Rome, September 10, 1974, NARA, CFPE.
\textsuperscript{66} Tel. 16877 from AmEmbassy Bonn to the State Dept., October 31, 1974, NARA, CFPE.
\textsuperscript{67} The signatures for the letter were collected from September 26, but the official document was submitted on December 9: Albonetti, \textit{L’Italia e l’atomica}, 177-81.
\textsuperscript{68} Tel. 17604 from AmEmbassy Rome to the State Dept., December 20, 1974, NARA, CFPE.
\textsuperscript{69} Tel. 0676 from AmEmbassy Rome to the State Dept., January 16, 1975, NARA, CFPE.
\textsuperscript{70} Tel. 0417 from AmEmbassy Vienna to the State Dept., January 17, 1975, NARA, CFPE.
to the new Foreign Minister, Mariano Rumor, shortly afterwards; the West German Foreign Minister Hans-Dietrich Genscher paid a visit to Rumor at the end of February; and a Soviet diplomat confided to an American one that the Soviets were talking to the Italians “all the time” about the treaty. On February 19, a cabinet meeting agreed to forward the NPT to the Italian Parliament for ratification. The text was submitted on March 26, and the ratification procedure began in April. Interestingly, in order to accelerate the procedure, the Moro government also decided to handle the NPT ratification together with that of the safeguards agreement (which had been approved by the Senate but still needed the plenary assent of the Chamber of Deputies). This complete reversal of the previous delaying tactics was concluded on April 23, when Italy finally ratified the NPT, albeit with the same list of twelve “observations” that had been deposited at the time of the signing.

One particular reason which may have played a role in the reversal was the promise that Italy be assigned a “quasi-permanent” seat in the IAEA Board of Governors, a sweetening pill that according to Ducci “more or less compensated” Italy for “accepting the role of a non-nuclear power.” 71 It should be noted, however, that this carrot had been accompanied by a large number of serious sticks. Before making its final decision, in fact, the Moro government had held two important meetings with the Australian Prime Minister, Edward Gough Whitlam, in late January, and with the Canadian one, Pierre Trudeau, in March. One of the key Italian goals had been to obtain a firm commitment from both visitors for the supply of uranium for its civilian program even if Italy did not ratify the NPT. Both conversations, however, fell short of the mark. The Canadian Prime Minister explicitly linked any future nuclear cooperation between the two countries to the Italian ratification of both agreements, and openly mentioned the negative impact of the Indian test on Canadian nuclear exports, which henceforth would be subjected to more rigorous safeguards. Whitlam, on the other hand, did not make any explicit linkage but still failed to conclude an agreement with Italy as his government had not yet established an official policy on the export of Australian uranium ore. 72 These negative results might have been the straw that broke the camel’s back and persuaded the Italian government to drop its last doubts – in between the two meetings the US Embassy was still worried that Italy would ratify the treaty with some official reservations, if it did at all, and on February 7 Ducci even told ACDA Director Fred Iklé that the ratification process might take as long as another year. 73 Assessing the

71 Tel. 6389 from AmEmbassy Rome to the State Dept., May 2, 1975, NARA, CFPE.
72 Tel. 039762 from AmEmbassy Rome to the State Dept., January 15, 1975, NARA, CFPE; Visita del PM Australiano Edward G. Whitlam, AM, ACS, b. 123; Tel. 3531 from AmEmbassy Rome to the State Dept., March 11, 1975, NARA, CFPE; Visita del PM del Canada Pierre Elliott Trudeau, AM, ACS, b. 123.
73 Tel. 028268 from State Dept. to AmEmbassy Rome, February 7, 1975, NARA, CFPE.
reasons for the final decision to ratify, an internal Central Intelligence Agency (CIA) memo noted that,

The Italians probably decided to ratify when it became apparent that they lacked support in the International Atomic Energy Agency for a legal maneuver that would have allowed them to continue receiving nuclear materials by ratifying the safeguards agreement required by the NPT, but not the treaty itself. Continued access to nuclear materials is particularly important to Rome now that it is seriously considering a plan intended to reduce dependence on imported oil through the construction of 20 new nuclear power plants by 1985. Canada, one of Italy’s major potential sources for uranium, recently made it known to the Italians that their request for supplies would not be considered until Rome ratified both the NPT and the safeguards agreement. Rome must also have been influenced by its failure to get around the provision making ratification a prerequisite for full participation in the NPT review conference of May 5.74

The importance of a regular fuel supply was also admitted by Moro himself a few days later. The Italian Ambassador to Tokyo, Perrone Capano, had written him a personal plea “not to associate his name with such an unequal, and laden with heavy consequences, treaty such as the NPT”. A few days later the Prime Minister replied listing all the reasons that had persuaded the government to ratify, and concluded that,

Yet another reason is the necessity for Italy to purchase uranium for its civilian atomic energy program. It is a badly felt need, for the present and for the future, also in light of a possible new crisis of oil supplies. On the other hand the Western countries which supply our uranium have unmistakably conditioned their deliveries to our ratification of the NPT. Only by doing so, therefore, is it possible to ensure for Italy the development of an advanced know-how and technology, and to avoid being left in a dangerous rearguard position.75

Conclusion

What were the goals of the Italian government in delaying the ratification of the NPT? Without full access to the records of the Italian protagonists and of the institutions involved in this story, it is possible at best to offer a plausible thesis. The

74 “Italy finally ratifies the NPT”, April 25, 1975, in Staff Notes: Western Europe, Canada, International Organizations, NARA, CREST database.

documentation from the CAMEN, in particular, would be crucial to conclude whether there was any truth behind the allegations that the Center was involved in the development of a nuclear test – even if the available sources all seem to deny that such an option was ever considered.\footnote{Personal confidential interviews with the author; Vaglini, \textit{Il nucleare a Pisa}.}

Among the possible explanations which the theoretical literature has advanced to clarify a country's ambiguous feelings toward the NPT, two seem particularly helpful to understand the Italian case. Itty Abraham has argued that given the inescapable dual dimension of nuclear programs, their fundamental ambivalence does not necessarily imply a military objective. To look at them from a proliferation perspective, therefore, is fundamentally misleading and narrows our analytical vision. On the contrary, “nuclear programs are best understood as one of a larger family of public technology projects, not all of which are weapons related or have destructive ends”. Resisting any form of outside control, therefore, does not necessarily mean a secret military aspiration, but can be explained as the reluctance to accept a serious limitation to “a claim to a form of national modernity that [states] once took pride in and took for granted”.\footnote{Itty Abraham, \textit{“The Ambivalence of Nuclear Histories”}, \textit{Osiris} 21 (2006): 49-65, see 51 and 65.} Ariel Levite, on the other hand, has advanced a thesis which may be closer to capturing the essence of what the Italian government was trying to do.\footnote{Ariel E. Levite, \textit{“Never Say Never Again: Nuclear Reversal Revisited”}, \textit{International Security} 27, no. 3 (2002): 59-88.} Faced with the unpalatable request of adhering to the NPT and accept its restraints, Levite argued, most states do not make a sudden and complete u-turn. Rather, they gradually probe all the possible options to maintain a critical capacity to move quickly from a civilian to a military program. By doing so, they try to explore if the treaty provisions contain any loophole which may allow them to retain (or acquire, if they do not have it yet) as much as possible of the necessary technical knowledge and expertise, as well as the crucial resources in terms of fissile material and technological infrastructure. Levite defined this attitude as “nuclear hedging”, a national strategy lying somewhere in between nuclear pursuit and nuclear rollback.

Levite’s paradigm of a hedging state trying to maximize its capacities might go a long way toward explaining the Italian behavior between 1969 and 1975. If one also takes into account Gaja’s suggestion that Italy should strive to introduce into the NPT regime a third category of states which have the technological capacity to weaponize but refuse to do so, the Italian initiatives in the field of uranium enrichment, space research and nuclear naval propulsion, as well as the delaying tactics in the ratification of the treaty, may all be seen as an attempt to bolster the country’s technological status as much as possible in order to provide policymakers with the broadest possible range of options.