1113-47-102 **Eva A. Gallardo-Gutierrez*** (eva.gallardo@mat.ucm.es), Dpto. Analisis Matematico, Fac. Matematicas, Universidad Complutense de Madrid, Plaza de Ciencias 3, 28040 Madrid, Spain. *An extension of a Theorem of Domar on invariant subspaces.*

A remarkable theorem of Domar asserts that the lattice of the invariant subspaces of the right shift semigroup $\{S_\tau\}_{\tau\geq 0}$ in $L^2(\mathbb{R}_+, w(t)dt)$ consists of just the *"standard invariant subspaces"* whenever w is a positive continuous function in $\mathbb{R}_+$ such that

1. $\log w$ is concave in $[c, \infty)$ for some $c \geq 0$,
2. $\lim\limits_{t\to\infty} \dfrac{-\log w(t)}{t} = \infty$, and $\lim\limits_{t\to\infty} \dfrac{\log|\log w(t)| - \log t}{\sqrt{\log t}} = \infty$.

We prove an extension of Domar's Theorem to a wider class of weights w not necessary fulfilling condition (1); which answers a question posed by Domar in *Extensions of the Titchmarsh convolution theorem with application in the theory of invariant subspaces*, Proc. London Math. Soc. **46** (1983), 288–300.

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